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August 3, 2020

Alan R. Kaufman, AICP
Director of Planning
Town of North Castle
17 Bedford Rd.
Armonk, NY 10504

Re: ODOARDI – Vacant Lot
22 Nethermont Ave. – New House Construction
Tax ID: Section 122.16 – Block 4 – Lot 7

Dear Mr. Kaufman & Members of the Board,

This letter accompanies a response to comments and revisions to plans, in response to the comments received from the Planning Board Staff and Town Consulting Engineer.

The tax ID of the property is, Section 122.16 – Block 4 – Lot 7, and is in zoning district R-5 with a total land area of 0.16 acres (6,948 Sq. Ft). The property is situated on the easterly side of Nethermont Ave, approximately 180 feet from the intersection of Freedom Road.

The purpose of the application is to construct one (1) single family residence, which will be constructed to conform with all the Town of North Castle code requirements (Zoning, Building, Engineering, etc.). The existing lot is currently vacant with vegetation on the majority of the lot and a small gravel area along Nethermont Avenue. The lot currently has fourteen (14) trees located within the property lines (See Tree Inventory table on “Existing Conditions and Removals” plan, sheet 2 of 4) that have a caliper of 6” or greater. There are a total of twelve (12) trees proposed for removal, and ten (10) out of the twelve (12) trees proposed for removal are between 6” to 8” in caliper, while the remaining two (2) trees being removed are 12” and 16” in caliper. The two (2) trees that are not proposed for removal, are mature trees at 10” and 16” in caliper. There is a proposed landscape/planting plan included in the submittal which shows replacement trees for the proposed removals.

This application was presented to the board on January 27, 2020. At the planning board meeting the board expressed concerns regarding rock removal and the aesthetics of the home. In addition there were comments issued from both the members of the planning board and the town engineer. As part of this submittal we have addressed all comments issued by the board and the town engineer on January 24, 2020, including the concern of rock removal and the aesthetics of the home. The applicant has retained Geotechnical Engineering Services, P.C., to analyze the rock on the building site and advise on the methods of removal. A report has been included with the submittal.



GABRIEL E SENOR P.C.

Odoardi – Vacant Lot – 22 Nethermont Ave., White Plains, NY 10603

New House Construction – Tax ID: Section 122.16 – Block 4 – Lot 41

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If you have any additional questions, comments or concerns regarding the project, please feel free to contact our office.

Thank you for your consideration.

Very Truly Yours,

Eliot Senor, P.E., L.S.

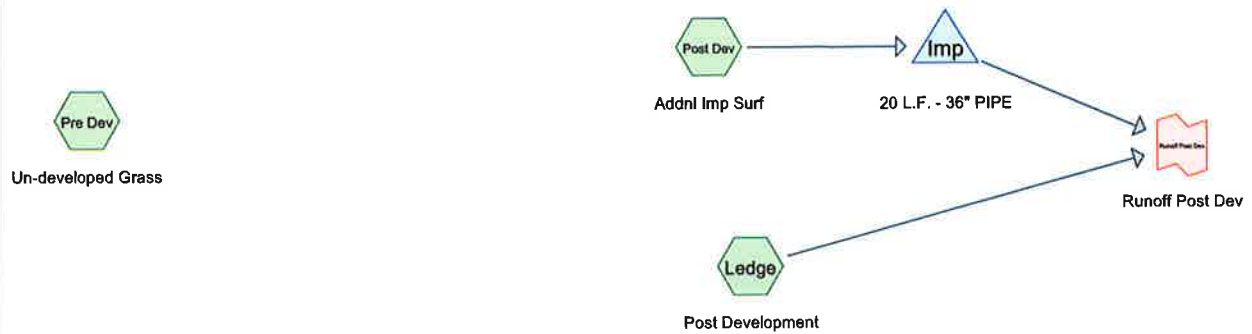


GABRIEL E SENOR P.C.

Odoardi – Vacant Lot – 22 Nethermont Ave., White Plains, NY 10603
New House Construction – Tax ID: Section 122.16 – Block 4 – Lot 41

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22 NETHERMONT AVENUE
25 YEAR - 24 HOUR RAINFALL CALCULATIONS



NETHERMONT HYDROCAD

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.068	79	<50% Grass cover, Poor, HSG B (Ledge, Pre Dev)
0.053	98	Impervious Area Constructed (Post Dev)
0.078	98	Ledge (Ledge)
0.120	100	Rock-Ledge (Pre Dev)
0.319	95	TOTAL AREA

NETHERMONT HYDROCAD

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.068	HSG B	Ledge, Pre Dev
0.000	HSG C	
0.000	HSG D	
0.251	Other	Ledge, Post Dev, Pre Dev
0.319		TOTAL AREA

NETHERMONT HYDROCAD

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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
0.000	0.068	0.000	0.000	0.000	0.068	<50% Grass cover, Poor	Ledge , Pre Dev
0.000	0.000	0.000	0.000	0.053	0.053	Impervious Area Constructed	Post Dev
0.000	0.000	0.000	0.000	0.078	0.078	Ledge	Ledge
0.000	0.000	0.000	0.000	0.120	0.120	Rock-Ledge	Pre Dev
0.000	0.068	0.000	0.000	0.251	0.319	TOTAL AREA	

NETHERMONT HYDROCAD

NRCC 24-hr C 25 YEAR Rainfall=6.41"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 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 Ledge: Post Development Runoff Area=4,642 sf 73.29% Impervious Runoff Depth>5.59"
Flow Length=35' Slope=0.1800 '/' Tc=0.2 min CN=93 Runoff=0.75 cfs 0.050 af

Subcatchment Post Dev: Addnl Imp Surf Runoff Area=2,305 sf 100.00% Impervious Runoff Depth>6.17"
Flow Length=35' Slope=0.1800 '/' Tc=0.2 min CN=98 Runoff=0.39 cfs 0.027 af

Subcatchment Pre Dev: Un-developed Grass Runoff Area=6,948 sf 75.49% Impervious Runoff Depth>5.82"
Flow Length=60' Slope=0.1800 '/' Tc=3.8 min CN=95 Runoff=1.09 cfs 0.077 af

Pond Imp: 20 L.F. - 36" PIPE Peak Elev=498.94' Storage=67 cf Inflow=0.39 cfs 0.027 af
Outflow=0.27 cfs 0.027 af

Link Runoff Post Dev: Runoff Post Dev Inflow=1.00 cfs 0.077 af
Primary=1.00 cfs 0.077 af

Total Runoff Area = 0.319 ac Runoff Volume = 0.154 af Average Runoff Depth = 5.80"
21.18% Pervious = 0.068 ac 78.82% Impervious = 0.251 ac

Summary for Subcatchment Ledge: Post Development

[49] Hint: $T_c < 2dt$ may require smaller dt

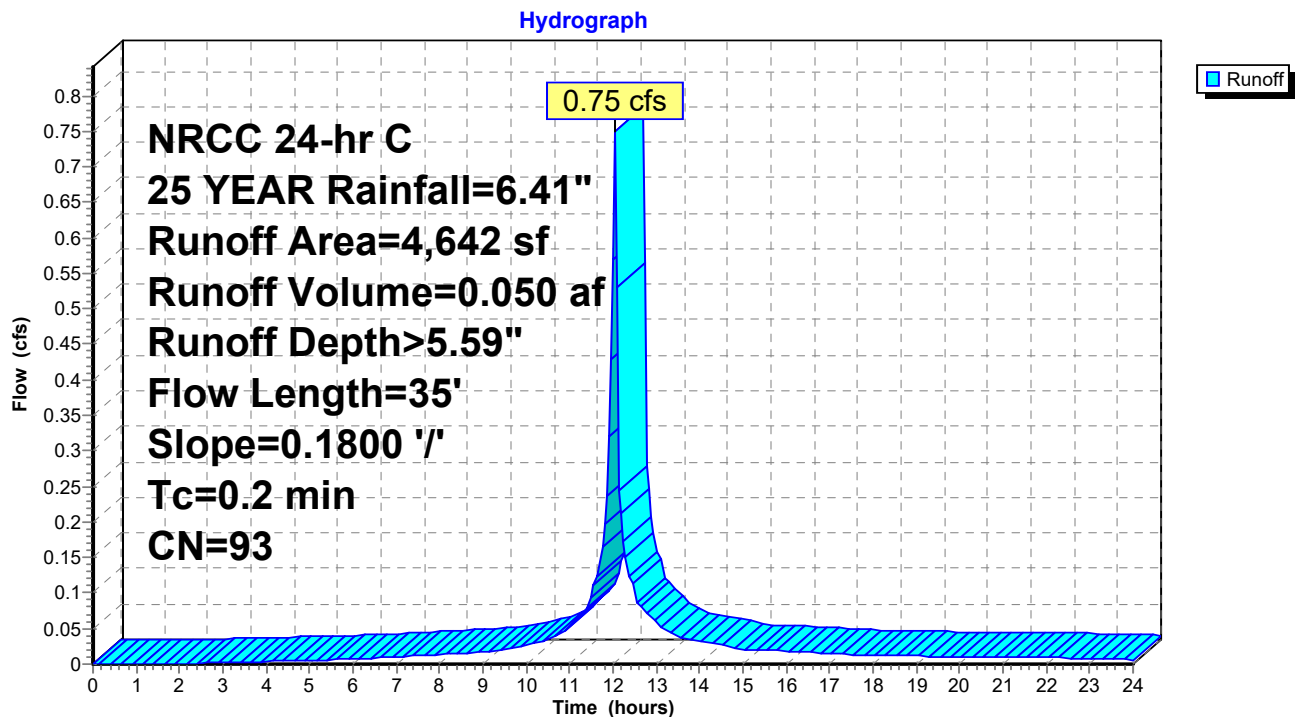
Runoff = 0.75 cfs @ 12.05 hrs, Volume= 0.050 af, Depth> 5.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, $dt=0.05$ hrs
NRCC 24-hr C 25 YEAR Rainfall=6.41"

	Area (sf)	CN	Description
*	3,402	98	Ledge
	1,240	79	<50% Grass cover, Poor, HSG B
	4,642	93	Weighted Average
	1,240		26.71% Pervious Area
	3,402		73.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	35	0.1800	2.81		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.50"

Subcatchment Ledge: Post Development



Summary for Subcatchment Post Dev: Addnl Imp Surf

[49] Hint: $T_c < 2dt$ may require smaller dt

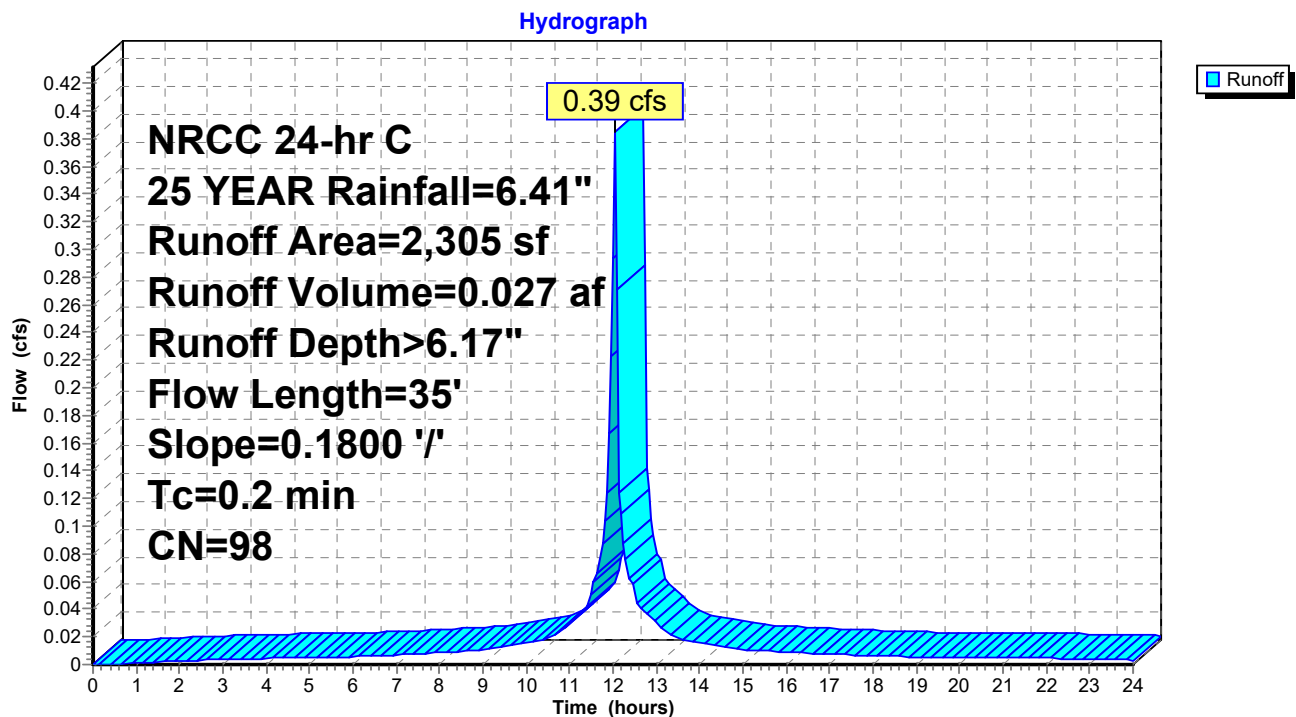
Runoff = 0.39 cfs @ 12.05 hrs, Volume= 0.027 af, Depth> 6.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, $dt=0.05$ hrs
NRCC 24-hr C 25 YEAR Rainfall=6.41"

Area (sf)	CN	Description
* 2,305	98	Impervious Area Constructed
2,305		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	35	0.1800	2.81		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.50"

Subcatchment Post Dev: Addnl Imp Surf



NETHERMONT HYDROCAD

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NRCC 24-hr C 25 YEAR Rainfall=6.41"

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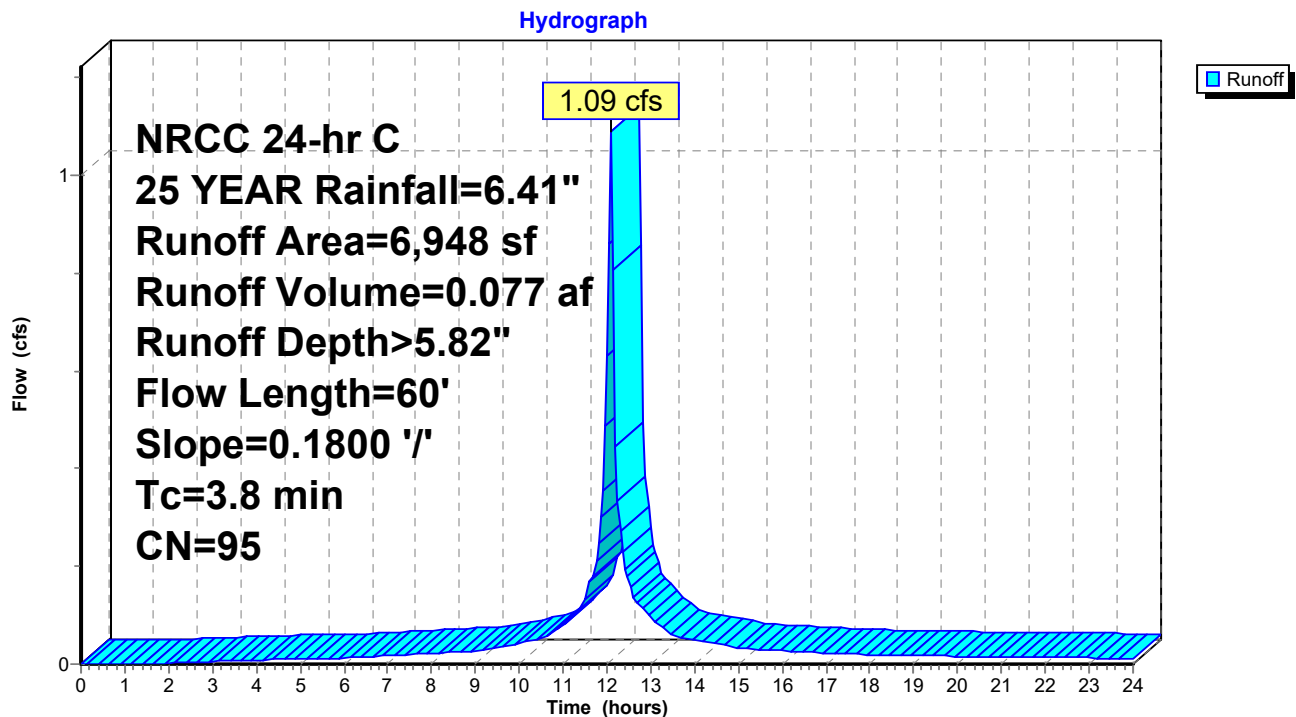
Summary for Subcatchment Pre Dev: Un-developed Grass[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 1.09 cfs @ 12.10 hrs, Volume= 0.077 af, Depth> 5.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, $dt=0.05$ hrs
NRCC 24-hr C 25 YEAR Rainfall=6.41"

Area (sf)	CN	Description
1,703	79	<50% Grass cover, Poor, HSG B
* 5,245	100	Rock-Ledge
6,948	95	Weighted Average
1,703		24.51% Pervious Area
5,245		75.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	60	0.1800	0.27		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"

Subcatchment Pre Dev: Un-developed Grass

NETHERMONT HYDROCAD

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NRCC 24-hr C 25 YEAR Rainfall=6.41"

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Summary for Pond Imp: 20 L.F. - 36" PIPE

Inflow Area = 0.053 ac, 100.00% Impervious, Inflow Depth > 6.17" for 25 YEAR event
 Inflow = 0.39 cfs @ 12.05 hrs, Volume= 0.027 af
 Outflow = 0.27 cfs @ 12.10 hrs, Volume= 0.027 af, Atten= 30%, Lag= 3.2 min
 Primary = 0.27 cfs @ 12.10 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 498.94' @ 12.10 hrs Surf.Area= 60 sf Storage= 67 cf

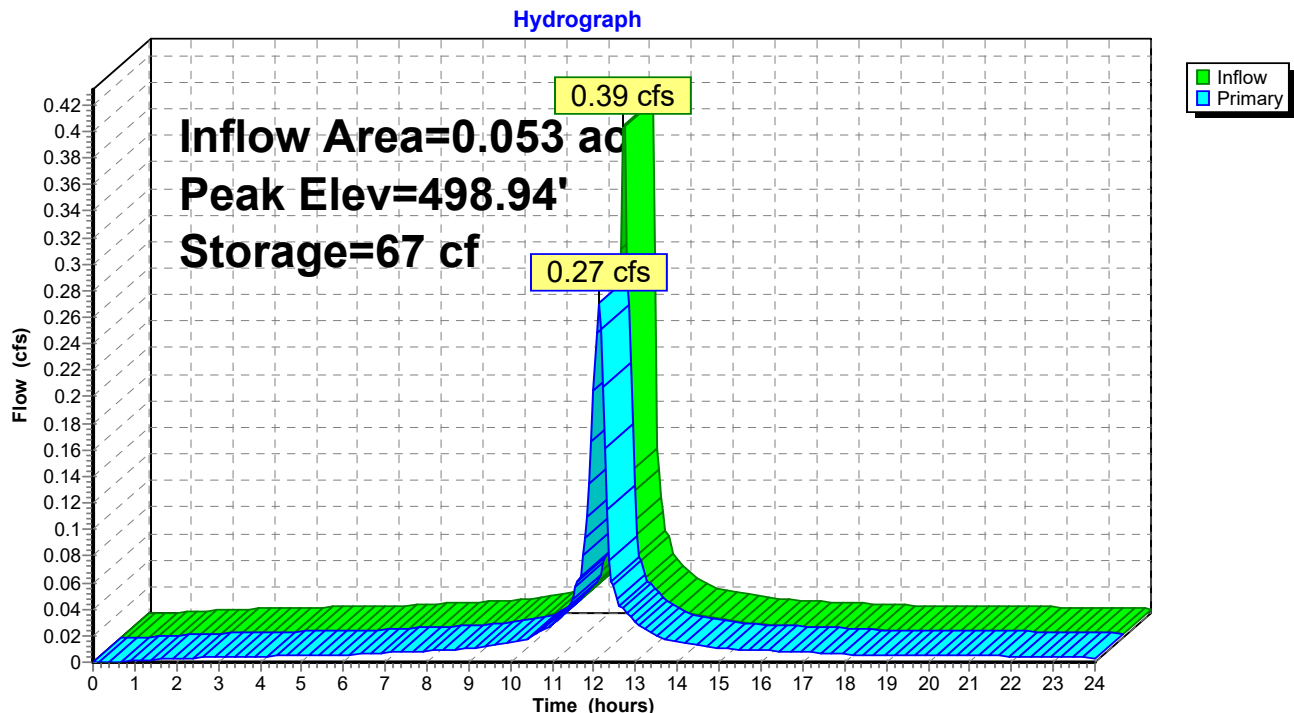
Plug-Flow detention time= 1.8 min calculated for 0.027 af (100% of inflow)
 Center-of-Mass det. time= 1.6 min (741.5 - 739.8)

Volume	Invert	Avail.Storage	Storage Description
#1	497.50'	141 cf	36.0" Round Pipe Storage L= 20.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	497.50'	3.0" Vert. Orifice/Grate C= 0.600
#2	Primary	500.00'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=0.27 cfs @ 12.10 hrs HW=498.93' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.27 cfs @ 5.50 fps)
 2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

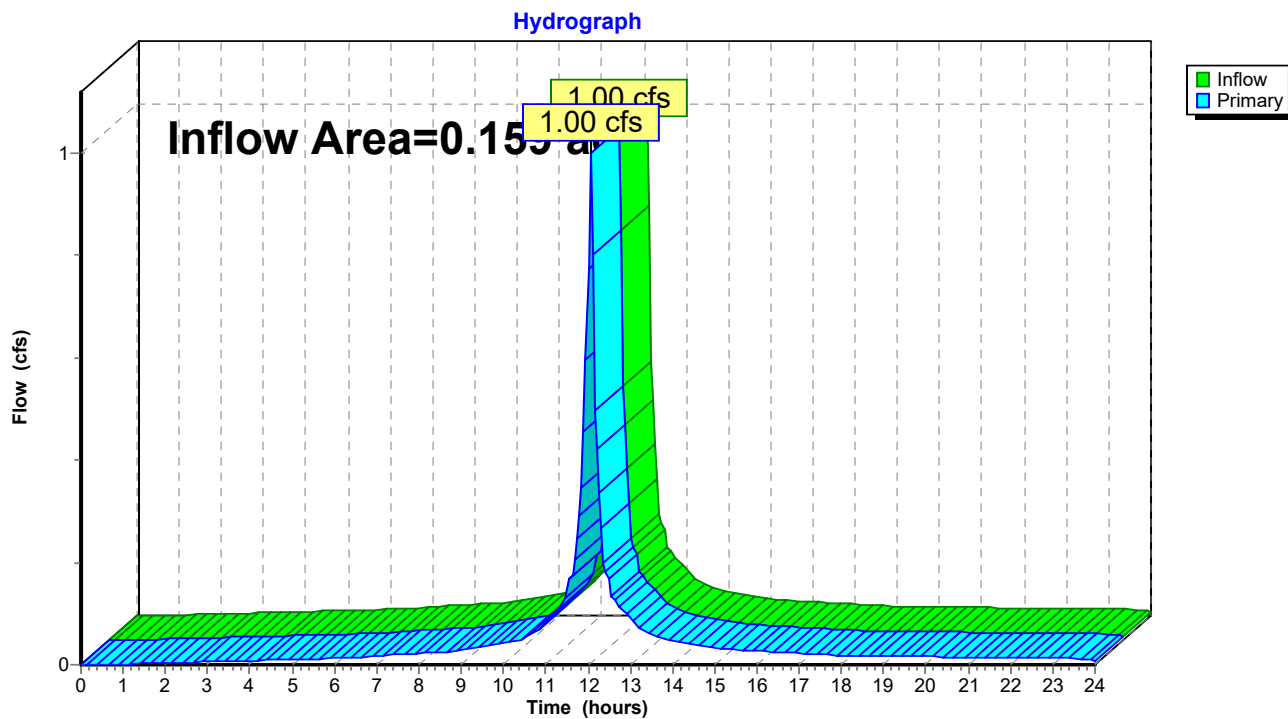
Pond Imp: 20 L.F. - 36" PIPE

Summary for Link Runoff Post Dev: Runoff Post Dev

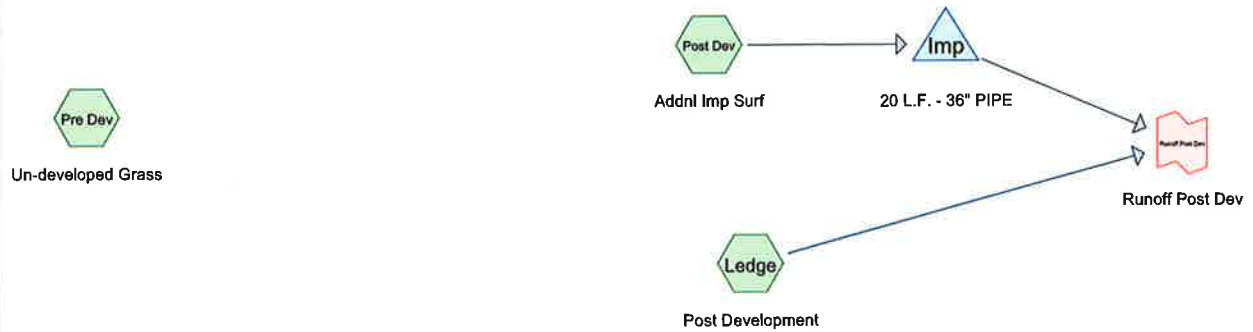
Inflow Area = 0.159 ac, 82.15% Impervious, Inflow Depth > 5.78" for 25 YEAR event
 Inflow = 1.00 cfs @ 12.05 hrs, Volume= 0.077 af
 Primary = 1.00 cfs @ 12.05 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link Runoff Post Dev: Runoff Post Dev



22 NETHERMONT AVE
100 YEAR - 24 HOUR RAINFALL CALCULATIONS



NETHERMONT HYDROCAD

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.068	79	<50% Grass cover, Poor, HSG B (Ledge, Pre Dev)
0.053	98	Impervious Area Constructed (Post Dev)
0.078	98	Ledge (Ledge)
0.120	100	Rock-Ledge (Pre Dev)
0.319	95	TOTAL AREA

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.068	HSG B	Ledge, Pre Dev
0.000	HSG C	
0.000	HSG D	
0.251	Other	Ledge, Post Dev, Pre Dev
0.319		TOTAL AREA

NETHERMONT HYDROCAD

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Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.068	0.000	0.000	0.000	0.068	<50% Grass cover, Poor	Ledge , Pre Dev
0.000	0.000	0.000	0.000	0.053	0.053	Impervious Area Constructed	Post Dev
0.000	0.000	0.000	0.000	0.078	0.078	Ledge	Ledge
0.000	0.000	0.000	0.000	0.120	0.120	Rock-Ledge	Pre Dev
0.000	0.068	0.000	0.000	0.251	0.319	TOTAL AREA	

NETHERMONT HYDROCAD

NRCC 24-hr C 100 year Rainfall=9.23"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 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 Ledge: Post Development Runoff Area=4,642 sf 73.29% Impervious Runoff Depth>8.38"
Flow Length=35' Slope=0.1800 '/' Tc=0.2 min CN=93 Runoff=1.10 cfs 0.074 af

Subcatchment Post Dev: Addnl Imp Surf Runoff Area=2,305 sf 100.00% Impervious Runoff Depth>8.99"
Flow Length=35' Slope=0.1800 '/' Tc=0.2 min CN=98 Runoff=0.56 cfs 0.040 af

Subcatchment Pre Dev: Un-developed Grass Runoff Area=6,948 sf 75.49% Impervious Runoff Depth>8.62"
Flow Length=60' Slope=0.1800 '/' Tc=3.8 min CN=95 Runoff=1.58 cfs 0.115 af

Pond Imp: 20 L.F. - 36" PIPE Peak Elev=499.94' Storage=123 cf Inflow=0.56 cfs 0.040 af
Outflow=0.36 cfs 0.040 af

Link Runoff Post Dev: Runoff Post Dev Inflow=1.42 cfs 0.114 af
Primary=1.42 cfs 0.114 af

Total Runoff Area = 0.319 ac Runoff Volume = 0.229 af Average Runoff Depth = 8.60"
21.18% Pervious = 0.068 ac 78.82% Impervious = 0.251 ac

Summary for Subcatchment Ledge: Post Development

[49] Hint: $T_c < 2dt$ may require smaller dt

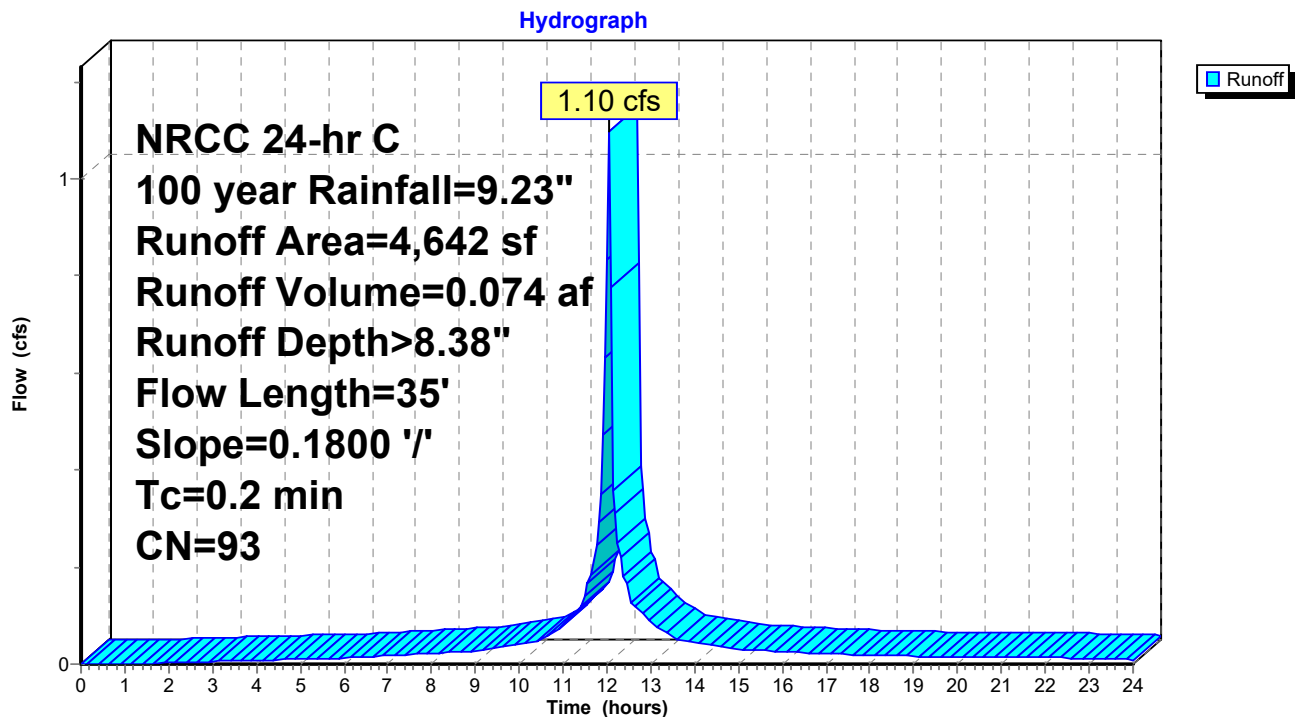
Runoff = 1.10 cfs @ 12.05 hrs, Volume= 0.074 af, Depth> 8.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, $dt=0.05$ hrs
NRCC 24-hr C 100 year Rainfall=9.23"

	Area (sf)	CN	Description
*	3,402	98	Ledge
	1,240	79	<50% Grass cover, Poor, HSG B
	4,642	93	Weighted Average
	1,240		26.71% Pervious Area
	3,402		73.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	35	0.1800	2.81		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.50"

Subcatchment Ledge: Post Development



Summary for Subcatchment Post Dev: Addnl Imp Surf

[49] Hint: $T_c < 2dt$ may require smaller dt

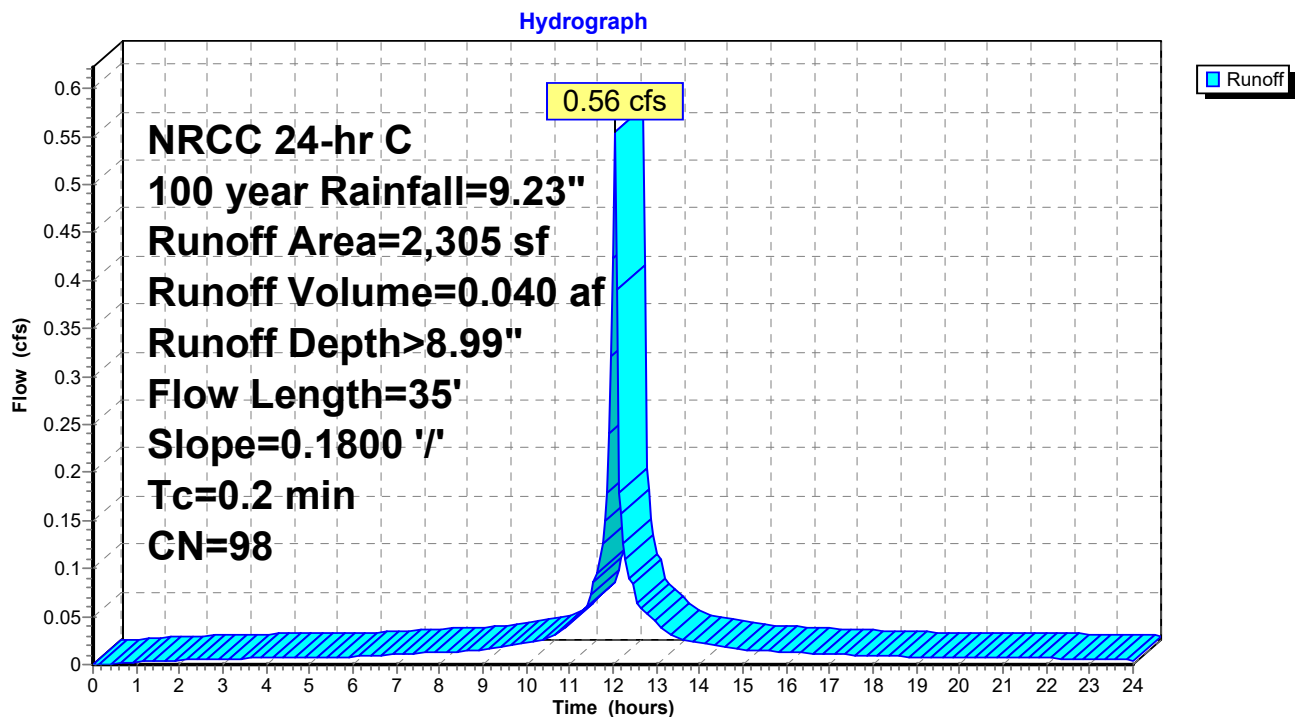
Runoff = 0.56 cfs @ 12.05 hrs, Volume= 0.040 af, Depth> 8.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, $dt=0.05$ hrs
NRCC 24-hr C 100 year Rainfall=9.23"

Area (sf)	CN	Description
* 2,305	98	Impervious Area Constructed
2,305		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	35	0.1800	2.81		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.50"

Subcatchment Post Dev: Addnl Imp Surf



Summary for Subcatchment Pre Dev: Un-developed Grass

[49] Hint: $T_c < 2dt$ may require smaller dt

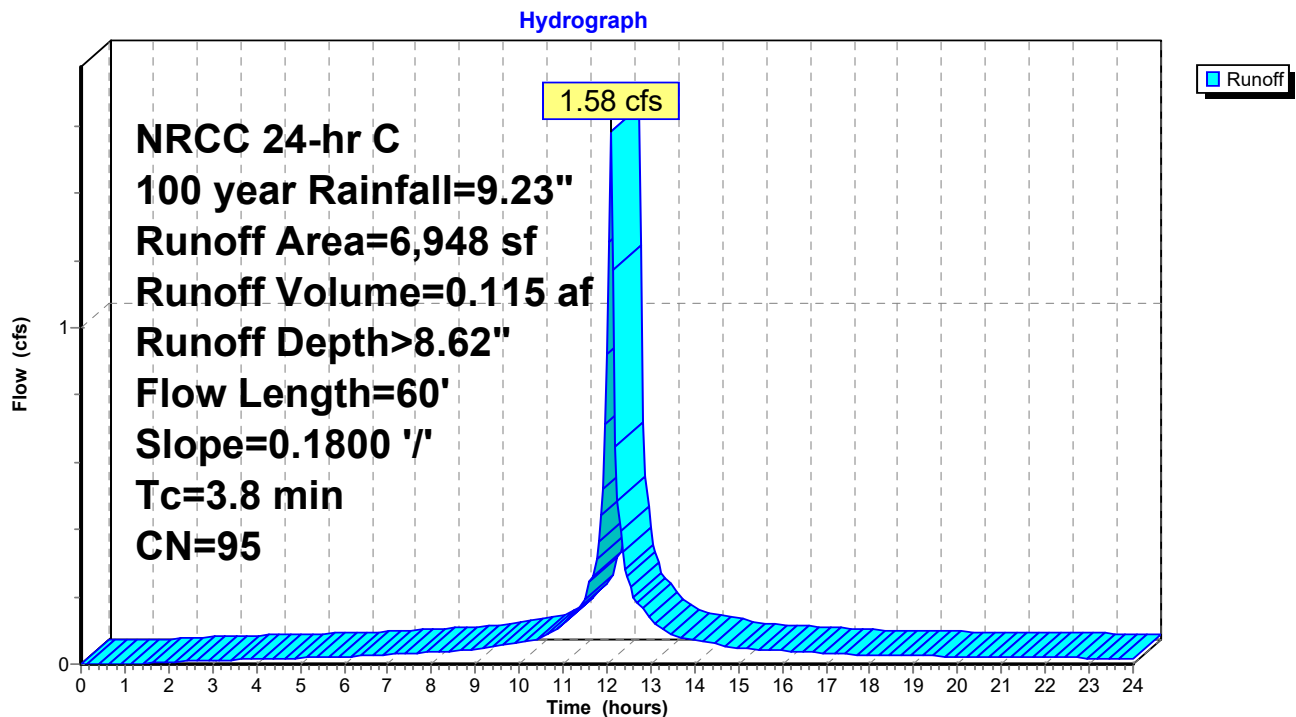
Runoff = 1.58 cfs @ 12.10 hrs, Volume= 0.115 af, Depth> 8.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, $dt=0.05$ hrs
NRCC 24-hr C 100 year Rainfall=9.23"

Area (sf)	CN	Description
1,703	79	<50% Grass cover, Poor, HSG B
* 5,245	100	Rock-Ledge
6,948	95	Weighted Average
1,703		24.51% Pervious Area
5,245		75.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	60	0.1800	0.27		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"

Subcatchment Pre Dev: Un-developed Grass



Summary for Pond Imp: 20 L.F. - 36" PIPE

Inflow Area = 0.053 ac, 100.00% Impervious, Inflow Depth > 8.99" for 100 year event
 Inflow = 0.56 cfs @ 12.05 hrs, Volume= 0.040 af
 Outflow = 0.36 cfs @ 12.11 hrs, Volume= 0.040 af, Atten= 35%, Lag= 3.7 min
 Primary = 0.36 cfs @ 12.11 hrs, Volume= 0.040 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 499.94' @ 12.11 hrs Surf.Area= 47 sf Storage= 123 cf

Plug-Flow detention time= 2.1 min calculated for 0.040 af (100% of inflow)
 Center-of-Mass det. time= 2.0 min (736.8 - 734.9)

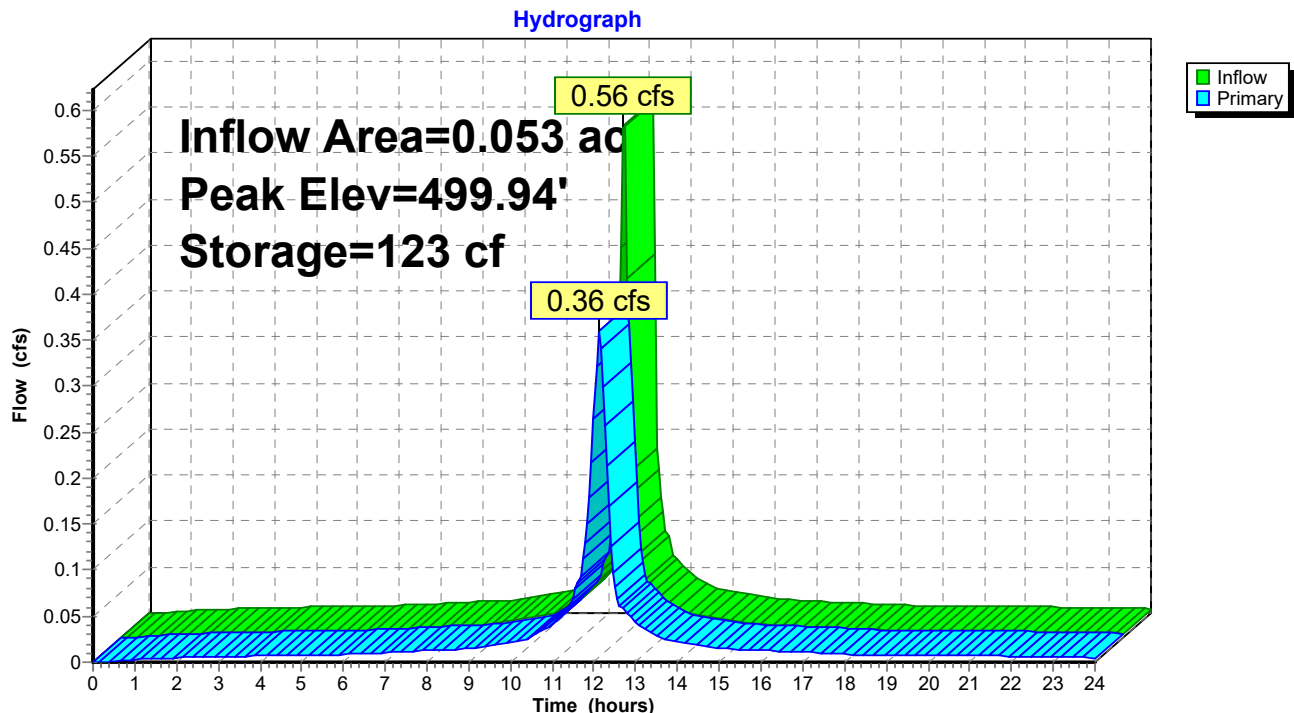
Volume	Invert	Avail.Storage	Storage Description
#1	497.50'	141 cf	36.0" Round Pipe Storage L= 20.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	497.50'	3.0" Vert. Orifice/Grate C= 0.600
#2	Primary	500.00'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=0.36 cfs @ 12.11 hrs HW=499.89' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.36 cfs @ 7.25 fps)
 2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond Imp: 20 L.F. - 36" PIPE

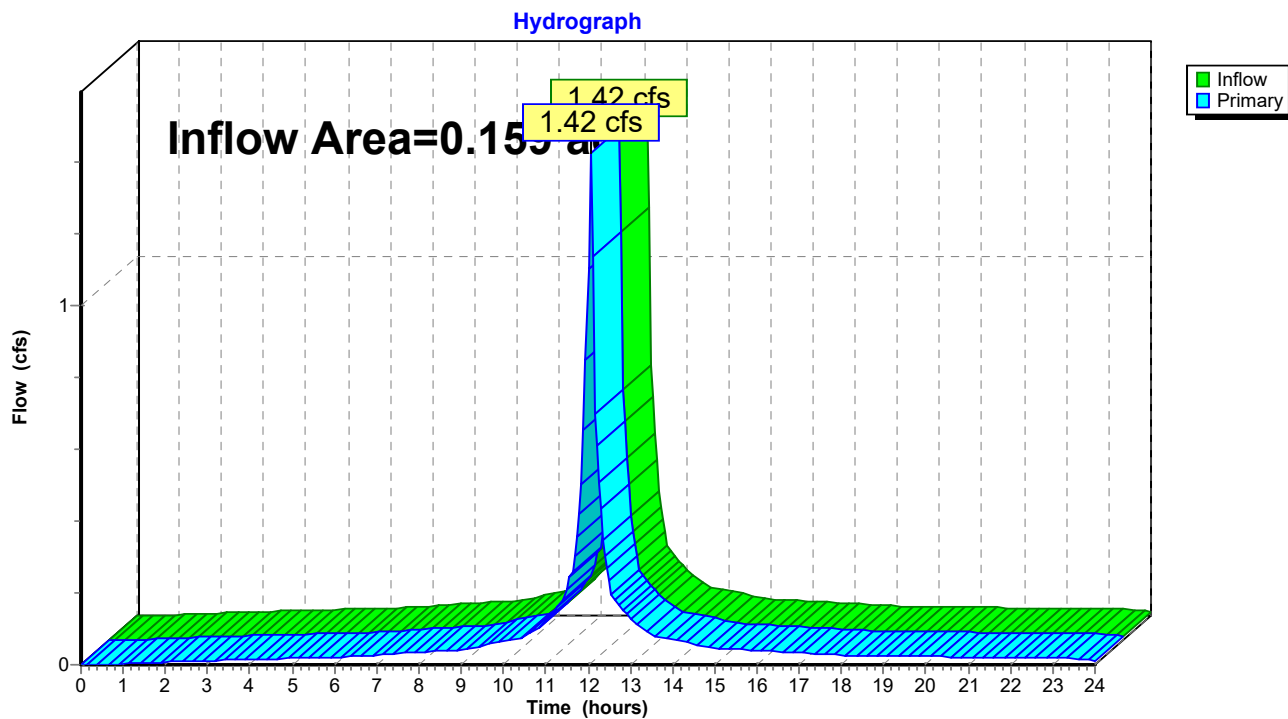


Summary for Link Runoff Post Dev: Runoff Post Dev

Inflow Area = 0.159 ac, 82.15% Impervious, Inflow Depth > 8.58" for 100 year event
 Inflow = 1.42 cfs @ 12.05 hrs, Volume= 0.114 af
 Primary = 1.42 cfs @ 12.05 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link Runoff Post Dev: Runoff Post Dev





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

FLOOR AREA CALCULATIONS WORKSHEET

Application Name or Identifying Title: PLANNING BOARD APPLICATION # 19-039 Date: 07/31/2020
ODORDI - 22 NETHERLAND AVE
Tax Map Designation or Proposed Lot No.: S: 122.16-4-7

Floor Area

1. Total Lot Area (Net Lot Area for Lots Created After 12/13/06): 6,948 SF
2. Maximum permitted floor area (per Section 355-26.B(4)): 2,987 SF
3. Amount of floor area contained within first floor:
0 existing + 1,068.0 proposed = 1,068.0 SF
4. Amount of floor area contained within second floor:
0 existing + 1,068.0 proposed = 1,068.0 SF
5. Amount of floor area contained within garage:
0 existing + 280 proposed = 280 SF
6. Amount of floor area contained within porches capable of being enclosed:
0 existing + 78.2 proposed = 78.2 SF
7. Amount of floor area contained within basement (if applicable - see definition):
0 existing + 0 proposed = 0 SF
8. Amount of floor area contained within attic (if applicable - see definition):
0 existing + 0 proposed = 0 SF
9. Amount of floor area contained within all accessory buildings:
0 existing + 0 proposed = 0 SF
10. Proposed floor area: Total of Lines 3 - 9 = 2,494.2 SF (circled)

If Line 10 is less than or equal to Line 2, your proposal **complies** with the Town's maximum floor area regulations and the project may proceed to the Residential Project Review Committee for review. If Line 10 is greater than Line 2 your proposal does not comply with the Town's regulations.

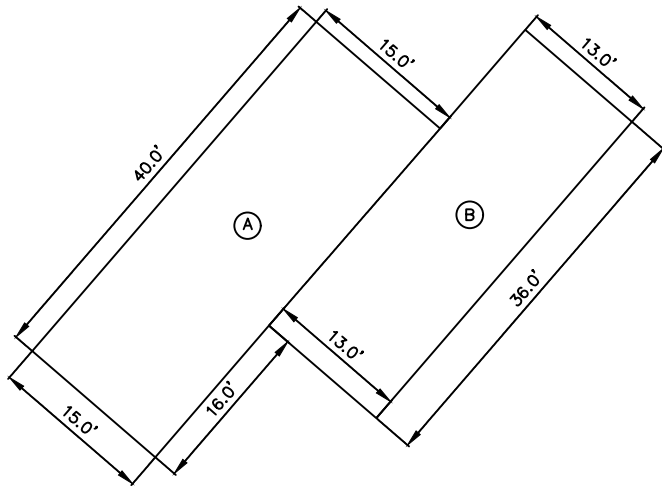
Signature and Seal of Professional Preparing Worksheet



08/02/2020
Date

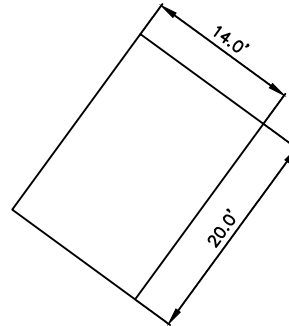
22 NETHERMONT
GROSS FLOOR AREA CALCULATIONS

FIRST FLOOR GFA CALCULATIONS



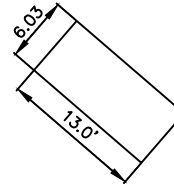
A - 15' X 40' = 600 SF
B - 13' X 36' = 468 SF
FIRST FLOOR TOTAL AREA = 1,068 SF

GARAGE GFA CALCULATIONS



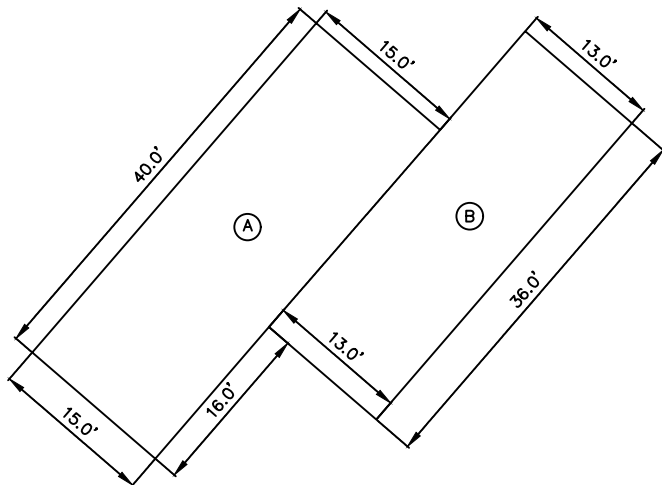
GARAGE TOTAL AREA = 14' X 20' = 280 SF

FRONT PORCH GFA CALCULATIONS



FRONT PORCH TOTAL AREA = 6.03' X 13' = 78.2 SF

SECOND FLOOR GFA CALCULATIONS



A - 15' X 40' = 600 SF
B - 13' X 36' = 468 SF
SECOND FLOOR TOTAL AREA = 1,068 SF

GROSS FLOOR AREA CALCULATIONS

FIRST FLOOR TOTAL AREA = 1,068 SF
SECOND FLOOR TOTAL AREA = 1,068 SF
FRONT PORCH TOTAL AREA = 6.03' X 13' = 78.2 SF
GARAGE TOTAL AREA = 14' X 20' = 280 SF

GROSS FLOOR AREA = 2,494.2



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

GROSS LAND COVERAGE CALCULATIONS WORKSHEET

Application Name or Identifying Title: PLANNING BOARD APPLICATION # 19-039 Date: 07/31/2020
ODDARDY - 22 NETHERMONT AVE
Tax Map Designation or Proposed Lot No.: S: 122.16 B: 4 L: 7

Gross Lot Coverage

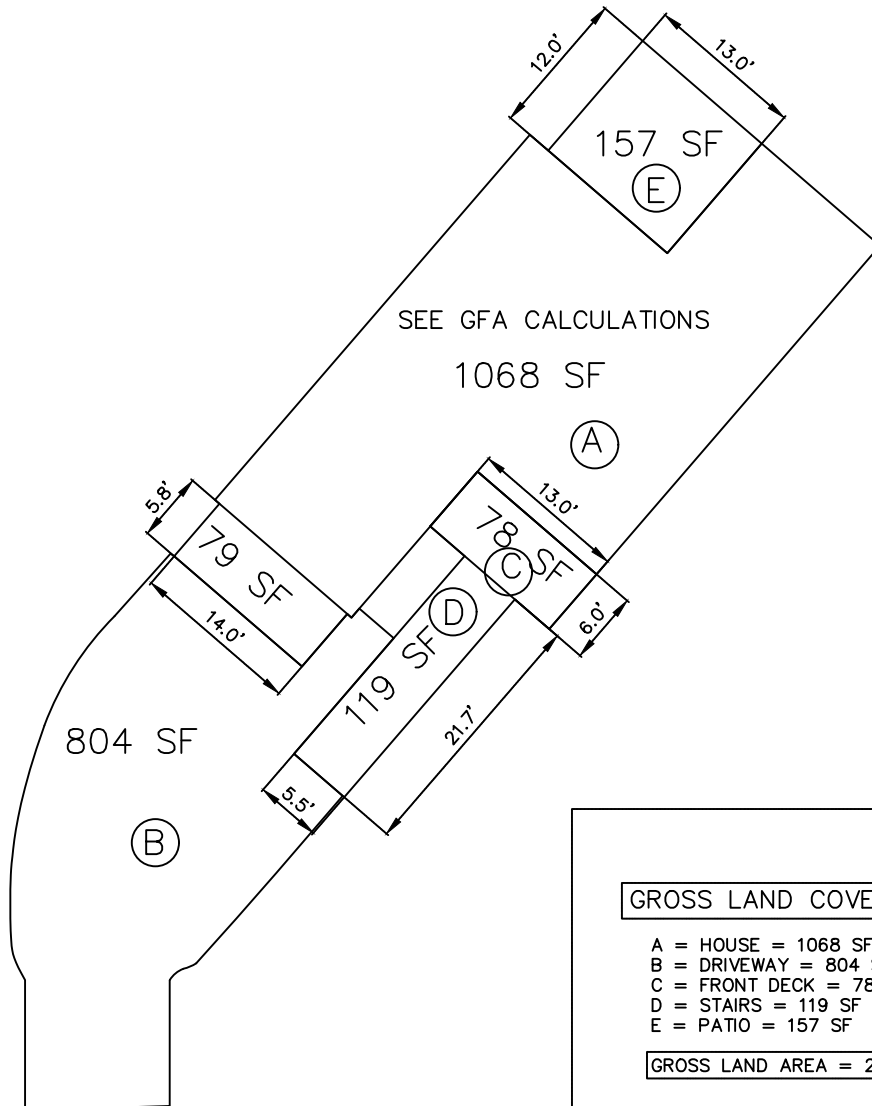
1. Total lot Area (Net Lot Area for Lots Created After 12/13/06): 6,948 SF
2. Maximum permitted gross land coverage (per Section 355-26.C(1)(a)): 3,084.4 SF
3. BONUS maximum gross land cover (per Section 355-26.C(1)(b)):
Distance principal home is beyond minimum front yard setback
0 x 10 = 0 SF
4. TOTAL Maximum Permitted gross land coverage = Sum of lines 2 and 3 3,084.4 SF
5. Amount of lot area covered by principal building:
0 existing + 1,068 proposed = 1,147 SF
~~1,068 SF~~
6. Amount of lot area covered by accessory buildings:
0 existing + 0 proposed = 0 SF
7. Amount of lot area covered by decks:
0 existing + 78 proposed = 78 SF
8. Amount of lot area covered by porches:
0 existing + 0 proposed = 0 SF
9. Amount of lot area covered by driveway, parking areas and walkways:
0 existing + 804 proposed = 804 SF
10. Amount of lot area covered by terraces:
0 existing + 157 proposed = 157 SF
11. Amount of lot area covered by tennis court, pool and mechanical equip:
0 existing + 0 proposed = 0 SF
12. Amount of lot area covered by all other structures:
0 existing + 119 proposed = 119 SF
13. Proposed gross land coverage: Total of Lines 5 - 12 = 2,226 SF (circled)
2,305 SF

If Line 13 is less than or equal to Line 4, your proposal complies with the Town's maximum gross land coverage regulations and the project may proceed to the Residential Project Review Committee for review. If Line 13 is greater than Line 4 your proposal does not comply with the Town's regulations.

Signature and Seal of Professional Preparing Worksheet



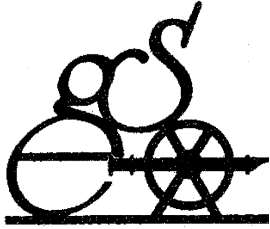
08/02/2020
Date



GROSS LAND COVERAGE CALCULATIONS

A = HOUSE = 1068 SF + 5.8' X 14' = 1,147 SF
B = DRIVEWAY = 804 SF
C = FRONT DECK = 78 SF
D = STAIRS = 119 SF
E = PATIO = 157 SF

GROSS LAND AREA = 2,305 SF



Gabriel E. Senor, P.C.

Engineers Planners Surveyors

90 N Central Park Avenue

Hartsdale, NY 10530

Tel: (914) 422-0070

Fax: (914) 422-3009

E-Mail: info@gesenor.com

07/31/2020

TO: Members of the Town of North Castle Planning Board

Joseph M. Cermele, P.E., CFM

Kellard Sessions Consulting

Consulting Town Engineers

CC: Adam Kaufman, AICP

Town Planner

Re: Site Plan Approval

22 Nethermont Ave

Section 122.16, Block 4, Lot 7

G.E.S Revisions/Written Response to Comments addressing the Planning Board Staff Report, dated January 24, 2020, and Revisions/Written Response to Comments Received from Kellard Sessions (Town Consulting Engineer), dated January 24, 2020.

Dear Members of the Town of North Castle Planning Board and Joseph M. Cermele, P.E., CFM (Town Consulting Engineer),

To follow are our revisions/responses to all comments received from the above referenced parties.

TOWN OF NORTH CASTLE STAFF COMMENTS DATED 01/24/2020:

Staff Recommendations

1. The Applicant should be directed to address all outstanding staff and consultant's comments.
 - Applicant has addressed all outstanding staff and consultant comments.
2. The Planning Board will need to determine whether the project is compatible with the Comprehensive Plan.
 - Not applicable to our revisions or response.

Procedural Comments

1. The Proposed Action would be classified as a Type II Action pursuant to the State Environmental Quality Review Act (SEQRA).
 - Not applicable to our revisions or response.

2. Pursuant to Section 12-18(1) of the Town Code, all site development plans submitted to the Planning Board are required to be referred to the Architectural Review Board (ARB) for review and comment.
 - The applicant is aware that ARB submittal is required.
3. The site plan should be forwarded to the Chief of Police, Fire Inspector and the North White Plains Fire Chief so that they may make any pertinent recommendations to the Planning Board including, but not limited to, the designation of no-parking zones, emergency vehicle access or any other issued deemed important to providing emergency services.
 - The site plan has been sent to the Chief of Police, Fire Inspector and the North White Plains Fire Chief. Police Chief Peter Simonsen via Website
Andrew Seicol, North WP Fire Chief via E Mail - chief2321@nwpfd.com
Robert Melillo, Fire Inspector via Website
4. The site plan should be forwarded to the Sewer and Water Department so that they may make any pertinent recommendations to the Planning Board including, but not limited to, the ability to provide water and sewer capacity for the proposed house.
 - The site plan has been sent to the Sal Misiti (smisiti@northcastleny.com) at the sewer and water department.
5. The Applicant will be required to obtain a curbcut permit from the North Castle Highway Department.
 - The applicant will obtain a curb cut permit prior to construction.
6. A neighbor notification meeting regarding the proposed site plan will need to be scheduled.
 - We are willing and able to attend a neighbor notification meeting. Please advise further as to when and where this takes place.
7. The site plan application will need to be referred to the Westchester County Planning Board pursuant to § 239-m of New York State General Municipal Law (GML) since the site is within 500 feet of the City of White Plains.
 - Ok.
8. The neighbor notification notice will need to be sent to the City of White Plains City Clerk pursuant to § 239-nn of New York State General Municipal Law (GML). This referral is required because the subject site is located within 500 feet of the City of White Plains.
 - Ok.
9. The Planning Board should schedule a site visit.
 - The board has performed a site visit.

Procedural Comments

1. The lot is highly constrained by steep slopes and lot width. In addition, the proposed house is placed at a skewed angle as compared to the property to the south.

It is recommended that additional screening be proposed along both side lot lines. In addition, it is recommended that the proposed side elevations be significantly improved aesthetically (window placement, number and detail) since the sides of the proposed house will be visible to the direct neighbors.

- The property to the south is 9 ft +- higher than our home. The difference in elevation means that the view of the house is less intrusive. In addition, we have added a 6 ft fence along the southern property line and added windows, as well as a front porch to enhance the view from the property to the south. The

combination of the proposed landscaping, 6 ft fence, side view of the front porch, additional windows and the elevation difference between the property to the south and our property will improve the aesthetics of the home when looking at the home from the southern property line.

2. It is noted that the submitted site plan does not depict a rear patio area. Typically, homeowners would expect to have this type of outdoor amenity when purchasing a new home. The Applicant should give consideration to securing approval for such an improvement at this time.

- A rear patio has been added to the plan.

3. The site plan depicts one off-street parking space in the proposed garage. The submitted site plan should be revised to depict two unimpeded, accessible, off-street parking spaces. Parking spaces can be provided in a garage or in a driveway. *(Staff Notes: As proposed, the site plan requires a vehicle to be parked in the driveway behind the car in the garage, which is not acceptable as the garage space is inaccessible if a car is in the driveway or vice versa.)*

- An additional parking spot has been added to the plan.

4. The Applicant should give consideration to providing a front porch on the proposed house. The porch would be functional and improve the aesthetics of the home. Additionally, a small roof covering the rear sliding doors should also be considered.

- A front porch has been added to the home to improve the aesthetics. The owner does not want to add any roof/covering to the rear at this time.

5. The site plan depicts walls in excess of six feet in height. Pursuant to Section 355-15.G of the Town Code, retaining walls in excess of 6 feet in height require Planning Board site plan approval. *(Staff Notes: The Applicant should provide a narrative response as how the proposed wall would comply with the requirements of Section 355-15.G of the Town Code.)*

- All walls in excess of 6 ft have been removed.

6. The site plan depicts the removal of 12 (all but one) Town-regulated trees. *(Staff Notes: Pursuant to Section 308-15 of the Town Code the Applicant should submit a tree survey indicating the size, species and condition of the trees on the property. In addition, the Applicant should provide a plan that details the replacement proposed to mitigate the impacts from the proposed tree removal. It is recommended that additional planting be provided along the side lot lines.)*

- A tree survey (Sheet TS-1), arborist table/letter (Table on sheet TS-1 and Letter Included in Submittal), and replacement tree plantings (Sheet LS-1) have all been provided.

7. The Applicant has indicated that a steep slope permit would not need to be issued for this property. *(Staff Notes: The Town Engineer should confirm that a steep slope permit would not be required.)*

- Ok

8. The Applicant should provide a building height exhibit for review.

- A building height exhibit has been provided. See sheet BH-1 of the submittal.

9. The Applicant should provide a maximum exterior wall height exhibit for review.

- All walls have been significantly reduced below the 6 ft maximum allowable height.

10. The Applicant should submit the required Gross Floor Area Calculations Worksheet and backup data for review.

- Gross Floor Area Worksheet has been attached.

11. The Applicant should submit the required Gross Land Coverage Calculations Worksheet and backup data for review.

- Gross Land Coverage Worksheet has been attached.

12. The site plan depicts the installation of a fence along the northern property line. A fence detail should be submitted for review.

- Detail of Fence has been added to SWEC Detail Sheet.

KELLARD SESSIONS CONSULTING, TOWN CONSULTING ENGINEERS, COMMENTS DATED 01/24/2020:

1. As required, the applicant has provided a property survey for the subject parcel; however, metes and bounds shall be indicated for the entire property and shall be included on the site plan. The survey shall be signed and sealed by a NYS Licensed Land Surveyor.

- Metes and Bounds have been added to the survey.

2. There appears to be existing improvements (parking, paved/gravel driveways) on the subject property being used by the neighboring property owners. These improvements shall be shown on the site plans. The plans shall clarify whether these improvements will require removal or if easements shall be established between the property owners.

- The existing conditions are shown on the existing conditions and removals plan TS-1. The gravel limits are shown, and it is noted to be removed.

3. The applicant has submitted an Existing Conditions Plan (Sheet TS-1). It appears that some of the proposed improvements are shown on this plan. Please revise the plan, as necessary, to illustrate only the existing conditions on the site and proposed removals.

- Plan has been revised to show only existing conditions.

4. For clarity and ease of review, the applicant should prepare a site plan that includes all proposed improvements including, but not limited to, proposed residence, walkways, patios, driveway including dimensions, a zoning compliance table, the minimum building envelope illustrating building setbacks and dimensions, retaining walls and existing neighboring buildings and driveways. Proposed grading, utilities, erosion controls, etc., should be illustrated on separate plan sheets.

- All proposed development shown on the SWEC plan Sheet 2 of 5.

5. The applicant shall demonstrate zoning compliance with respect to building height and maximum wall height. Average grade calculations and cross sections, as necessary, shall be submitted supporting this determination.

- Average grade calculations shown on SWEC Plan Sheet 2 of 5.

6. As proposed, the development of the site requires clearing the site and the removal of fourteen (14) trees. A landscaping plan has been submitted for the Board's consideration. The Board should consider whether the amount of tree removal is appropriate and if additional screening is needed between the proposed house and neighboring properties.
 - N/A to Gabriel E Senior.
7. Sight distance profiles shall be provided to demonstrate that the required 200 foot minimum sight distance is achieved in both directions. Westchester County GIS topographic data may be used to obtain the required existing elevations for the road profile. The contour elevations should be in the same datum as the contours provided on the submitted plans.
 - Applicant has addressed all outstanding staff and consultant comments.
8. The driveway profile shall be revised to include both horizontal and vertical scales, vertical curve data including high and low point elevations, length of vertical curve and existing and proposed station elevations. The profile shall be revised to demonstrate compliance with Sections 355-59 B (1) and (3) of the Town Code, related to maximum grades and limits of the 4% entry apron at the curb cut.
 - Applicant has addressed all outstanding staff and consultant comments.
9. The plan proposes retaining walls as high as six (6) feet. . The applicant must demonstrate compliance with the provisions of Section 355-15 G(l). The Board should review the walls and consider whether they are aesthetically pleasing and compatible with the surrounding residential character. The Site Plan shall include notes stating that "All walls greater than four (4) feet in height shall be designed by a NYS Licensed Professional Engineer prior to issuance of a Building Permit" and "The construction of all retaining walls greater than four (4) feet in height must be certified by the Design Professional prior to issuance of a Certificate of Occupancy."
 - We have eliminated any walls greater than or equal to 6 ft.
10. The proposed grading is shown to extend over the northern property line onto the neighboring property. The grading plan shall be revised to avoid this. In addition, the grading in the rear of the proposed residence appears to be incomplete. Revise the grading plan accordingly.
 - The grading errors have been corrected.
11. The proposed grading at the north side of the house illustrates a swale that will direct runoff toward the neighboring property to the north. The proposed grading shall be revised to avoid this condition.
 - I have revised the swales to keep runoff on our property. In general, surface runoff has always ran from the applicants property toward the front and rear yard of the neighbor to the north. We are improving the situation with the addition of our swales confining the runoff to our side of the property and out to the street.

12. Provide stormwater mitigation and design calculations for the runoff generated by the net increase in impervious surfaces for the 100-year, 24-hour design storm event. All invert elevations of the stormwater detention system and outlet structures shall be coordinated between the plan, details and the calculations.
 - We have provided the calculations for a 25 year and 100 year, 24 hour rain storm.
13. Stormwater design calculations shall include drainage maps for the pre- and post-developed conditions to illustrate the drainage areas used in the design calculations. Hydrologic calculations for proposed conditions appear to be missing and must be provided.
 - Drainage areas associated with HydroCAD calculations has been attached to this submittal showing the areas used for pre and post calculations.
14. The proposed stormwater mitigation practice is located less than one (1) foot from the front property line. All stormwater practices shall be located a minimum of ten (10) feet from all property lines. The plans shall be revised accordingly.
 - The stormwater mitigation system has been relocated .
15. The proposed invert elevations for the drainage components provide minimal cover over the proposed pipes. A minimum of one (1) foot of cover in non-paved areas and two (2) feet of cover in paved areas is recommended.
 - We have adjusted the inverts to provide maximum cover.
16. The plan proposes a trench drain in the driveway along the front property line. As proposed, a six (6) inch pipe will cross diagonally under the driveway with minimal cover. It is recommended that the pipe be relocated to discharge from the opposite side of the trench drain and run parallel to the driveway to improve cover requirements.
 - The 6" pipe exiting the slot drain has been routed according to your suggestion and cover has been maximized.
17. The plan shall note that all curb cuts shall be a maximum of 18 feet wide.
 - Max curb cut noted at driveway exit.
18. The plan indicates a new one (1) inch water service that will be connected to an existing water main in Nethermont Avenue. A detail shall be provided for the new water line connection to the existing main. The Trench Restoration Detail shall be revised to comply with North Castle Highway Department Standards.
 - Water main connection detail has been added to the utility plan.
19. Erosion control measures shall be illustrated on the proposed grading plan, including, but not limited to, silt fence, inlet protection, construction entrance and tree protection. The limit of disturbance shall be revised to illustrate and quantify all areas of disturbance on and off site.
 - All erosion control measures are now shown on the grading/stormwater plan.

Should you have any additional comments or questions concerning the above, please feel free to contact me. Thank you for your consideration in this matter.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Eliot Senor', with a stylized, flowing script.

Eliot Senor, P.E., L.S.

ID	Date
1	2/02
2	2/02
3	2/02
4	2/02
5	2/02
6	2/02
7	2/02
8	2/02
9	2/02
10	2/02
11	2/02
12	2/02
13	2/02
14	2/02

☒ CATCH BASIN
☐ DRAIN INLET
 UTILITY POLE
☐ SIGN POST
☒ HYDRANT
 WV WATER VALVE
 GV GAS VALVE
 LIGHT POLE
☒ TRAFFIC POLE
 ① TELE. MANHOLE
☒ ELECTRIC BOX
 ⑤ SEWER MANHOLE
 W MANHOLE
 ⑥ ELECTRIC MANHOLE
 ⑦ DRAIN MANHOLE
 M MANHOLE
☒ MONITORING WELL
 V VALVE
 14 TREE
 |
 SIZE
 +242.5 EXIST. ELEV.
 +(242.5) PROP'D ELEV.
 14 TREE
 |
 (TO BE REMOVED)
 III - III - III
 SILT FENCE
 OR HAYBALS AS REQ'D

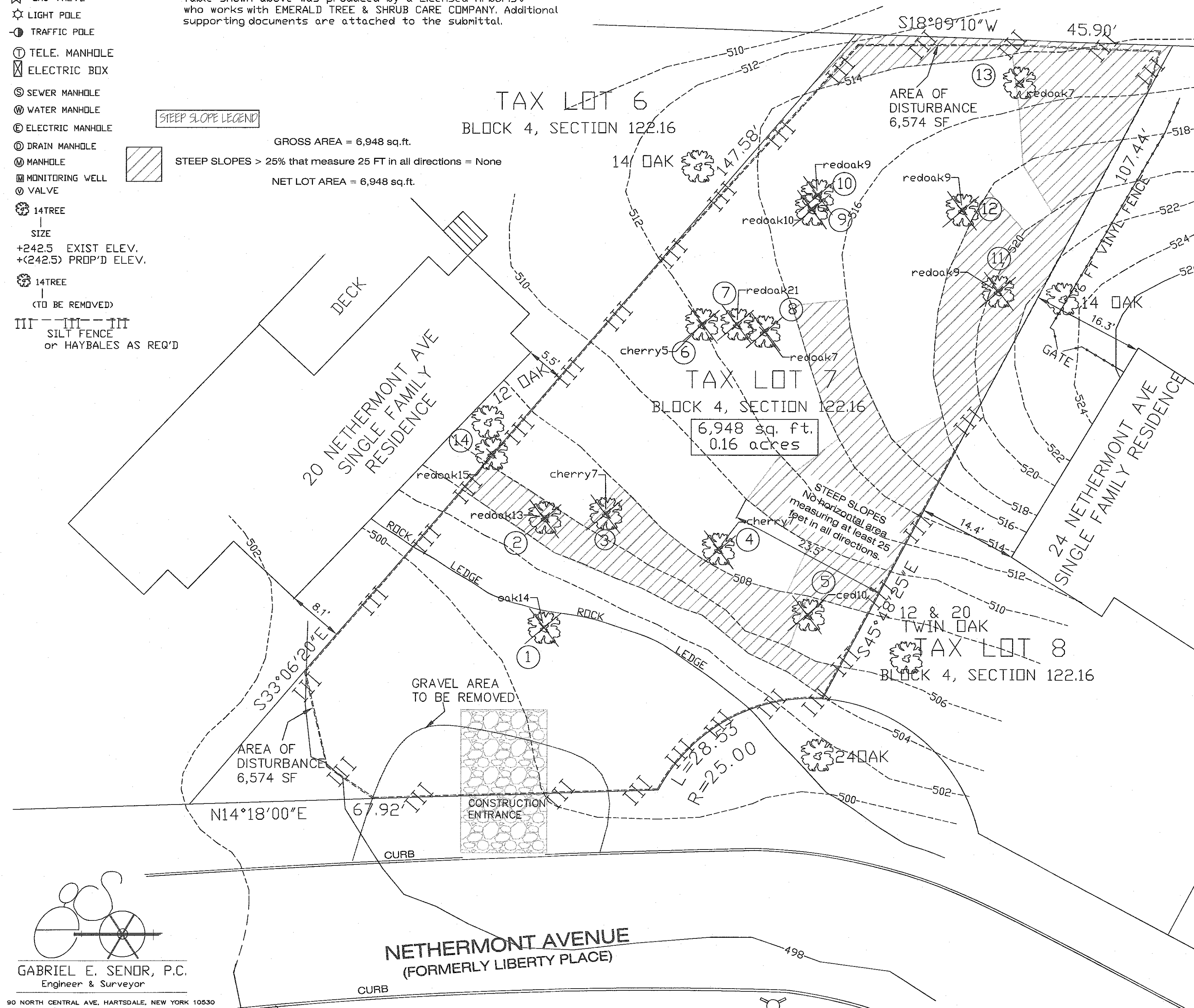
ZZ NETHERPORT AVE - TREE INVENTORY / REMOVALS										
ID	Date	Common	Botanical	Height	DBH	Health	Tug #	Qty	Objective	Location
1	2020-01-10 12:35:44	Bar Oak	<i>Quercus macrocarpa</i>	50'	12"	60%- Poor	7	1	1 proposed driveway	Front of Property
2	2020-01-10 10:00:24	North Red Oak	<i>Quercus rubra</i>	25'	8"	40%- Poor	4	1	1 proposed driveway	Front of Property
3	2020-01-10 13:00:02	Black Cherry	<i>Prunus serotina</i>	12'	7"	40%- Poor	3	1	1 proposed driveway	center of lot
4	2020-01-10 13:32:38	Black Cherry	<i>Prunus serotina</i>	12'	4"	40%- Poor	3	1	1 proposed driveway	Front center of lot
5	2020-01-10 13:04:04	Eastern Red Cedar	<i>Juniperus horizontalis</i>	12'	4"	40%- Poor	3	1	1 proposed driveway	Front center of lot
6	2020-01-10 13:05:53	Black Cherry	<i>Prunus serotina</i>	15'	6"	40%- Poor	6	1	1 in foot point of proposed home	Right Side
7	2020-01-10 13:07:56	North Red Oak	<i>Quercus rubra</i>	39'	21"	40%- Poor	7	1	1 in foot point of proposed home	Left Side
8	2020-01-10 13:10:16	North Red Oak	<i>Quercus rubra</i>	22'	10"	40%- Poor	9	1	1 in foot point of proposed home	Left Side
9	2020-01-10 13:11:49	North Red Oak	<i>Quercus rubra</i>	22'	10"	40%- Poor	9	1	1 Finish Grade is Lower than Existing Grade	center of lot
10	2020-01-10 13:13:56	North Red Oak	<i>Quercus rubra</i>	29'	9"	40%- Poor	10	1	1 Finish Grade is Lower than Existing Grade	Left Side
11	2020-01-10 13:15:13	North Red Oak	<i>Quercus rubra</i>	22'	10"	40%- Poor	9	1	1 Finish Grade is Lower than Existing Grade	center of lot
12	2020-01-10 13:16:57	North Red Oak	<i>Quercus rubra</i>	39'	9"	40%- Poor	12	1	1 Finish Grade is Lower than Existing Grade	Right Side
13	2020-01-10 13:18:01	North Red Oak	<i>Quercus rubra</i>	22'	10"	40%- Poor	13	1	1 To be Removed	center of lot
14	2020-01-10 13:20:29	North Red Oak	<i>Quercus rubra</i>	47'	19"	40%- Poor	14	1	1 To be Removed	center of lot

Table shown above was produced by a Licensed Arborist who works with EMERALD TREE & SHRUB CARE COMPANY. Additional supporting documents are attached to the submittal.

- Table show above was produced by a Licensed Arborist who works with EMERALD TREE & SHRUB CARE COMPANY. Additional supporting documents are attached to the submittal.
- Existing Gravel area to be removed.
- See Stormwater Plan for Erosion Control Details.
- See Stormwater Plan for Erosion Control notes.



CITY OF WHITE PLAINS



NOTES:

Locations, sizes and descriptions of all utilities are based on field survey location of surface appurtenances and available record plate data. Same is subject to scale and method limitations. Exact location for existing service installations may require verification by the respective utility companies (call 800-962-7962) and by excavation. The location, material and size of existing underground improvements or encroachments hereon are not certified underground routing cannot be guaranteed. Exact connections for existing service installations may require verification by excavation or dye testing. Such tests will be subject to additional fee based on time. Underground utilities may not always follow a straight line between surface appurtenances and should be confirmed by excavation and the respective companies. Please note that there are usually no utility company records of the location of on-site utilities connections.

[illegible]

EXISTING CONDITIONS,
REMOVALS, EROSION CONTROL
AND STEEP SLOPES

TAX ID: SECTION 122.16
BLOCK 4 LOT 7
AS SHOWN ON THE OFFICIAL TAX MAP OF
NORTH CASTLE
LOCATED IN THE
TOWN OF NORTH CASTLE
P.O. BOX: WHITE PLAINS, NY
WESTCHESTER COUNTY, NEW YORK.

NOTE: CONTOUR ELEVATIONS ARE ASSUMED.

GABRIEL E. SENOR, P.C.

CONSULTING ENGINEER & LAND SURVEYORS
90 NORTH CENTRAL AVE., HARTSDALE, NEW YORK, 10530
(914) 422-0070 FAX 422-3009



SCALE: 1" = 10'	
DATE: JANUARY 11, 2020	
DRAWN BY: GC	CHECKED BY: ES.

TS - 1

SHEET 1 of 5

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 of 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 AISC.
- 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.
- Final grading shall be sloped away from the building and foundations.
- Unless noted, all drainage piping on this plan is to be 6" Rigid HDPE ASTM F810-07 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.
- 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.
- Proposed Silt Fence to be installed along existing and proposed contours.
- Orange Construction Fence to be installed along the limits of the proposed disturbance limits line.
- Roof leaders to be connected to the drainage system with 6" rigid HDPE pipe at 2% min. slope or as shown.
- 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.
- 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 (s) shall be submitted to the Municipal Engineer for review and approval.
- All proposed temporary seeding mixture shall be in accordance with the New York State Standards and Specifications for Urban Erosion Control, dated August 2005.
- New sewer laterals are required for all new construction. Laterals must be extra heavy cast iron or ductile iron pipe or as directed by Municipal Engineer.
- Connection permits are required from the Department of Public Works for Sewer, Water, and Storm Water System overflows.
- All trenches in the Municipality Right of Way must be backfilled with controlled density fill (k-erete) or as directed by Municipal Engineer.
- A street opening permit must be obtained from the Municipality, all work in the Right of Way and an inspection performed prior to back filling and final approvals.
- Replace or re-lay stone curb as directed by Municipal Engineer.
- A non-conversion agreement for the basement in Special Flood Hazard Zone must be signed and filed prior to the issuance of a C. of O. for properties subjected to flooding.
- Curb cut permit is required from the Department of Public Works. Curb cut maximum width is 18 feet.
- 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.
- 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 required to provide Dig Safe NY ticket prior to issuance of permits.

ZONING TABLE - 22 NETHERMONT AVE

ZONE: SINGLE FAMILY RESIDENCE DISTRICT "R-5"

TOTAL LOT AREA: 0.16 Acres (6,948 SF)

DESCRIPTION	MIN/REQUIRED		PROPOSED	
MINIMUM LOT AREA	5000	SF	6,948	SF
75% WETLAND AREA	-		N/A	SF
50% STEEP SLOPE AREA	-		0	SF
NET LOT AREA	-		6,948	SF
MIN LOT FRONTAGE	50	FT	96.5	FT
MIN LOT WIDTH	50	FT	71.2 (AVG)	FT
MIN LOT DEPTH	100	FT	127.5 (AVG)	FT
FRONT YARD SETBACK	30	FT	30.4	FT
SIDE SETBACK	8	FT	8.0	FT
SECOND SIDE SETBACK	Total Both Sides - 18	FT	18.5	FT
REAR YARD SETBACK	30	FT	30.1	FT
OFF-STREET PARKING	2	FT	2.0	FT
OFF-STREET LOADING	1	FT	1.0	FT
MAX BUILDING HEIGHT	30	FT	26.4	FT
MAX BUILDING COVERAGE	30	%	15.3	%

22 NETHERMONT AVE - AVERAGE GRADE CALCULATIONS

Point #	ELEV	ELEV	DIST	AVG ELEV	(DIST) X (AVG ELEV)
1.0	503.6	503.2	15.0	503.4	7551.0
2.0	503.2	511.0	16.0	507.1	8113.6
3.0	511.0	511.5	13.0	511.3	6646.3

Point #	ELEV	ELEV	DIST	AVG ELEV	(DIST) X (AVG ELEV)
1.0	511.5	514.5	36.0	513.0	18468.0

Point #	ELEV	ELEV	DIST	AVG ELEV	(DIST) X (AVG ELEV)
1.0	514.5	514.5	13.0	514.5	6688.5
2.0	514.5	515.7	12.0	515.1	6181.2
3.0	515.7	514.2	15.0	515.0	7724.3

Point #	ELEV	ELEV	DIST	AVG ELEV	(DIST) X (AVG ELEV)
1.0	514.2	503.6	40.0	508.9	20356.0

TOTAL DISTANCE =	160.0	TOTAL DISTANCE X	ELEV =	81728.8
------------------	-------	------------------	--------	---------

MEAN ROOF HT.	539.8
AVG. GRADE ELEV.	510.8
BLDG HEIGHT	29.0 FT

EROSION CONTROL NOTES

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 PHASES 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 seed establishment.
- Inspections shall be documented in writing and submitted to the appropriate Municipal Agency having jurisdiction.

STOCK PILING OF EXCAVATED MATERIAL

- Strip Topsoil and Stockpile.
- Stockpile Excavation Subgrade.
- Seed piles with 1 lb. total annual rye or 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 to finish.

INSPECTION BY MUNICIPALITY

LANDSCAPING

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

DRAINAGE CALCULATIONS

The analysis was performed utilizing the Soil Conservation Service (SCS) TR-20 and TR-55 methodologies. Rainfall intensity was utilized for 100 Year storm event at 9.23" for a 24 hour rainfall in Westchester County. The development is the construction of a single family residence with associated impervious areas. For purposes of calculations, the pre-existing condition of the lot was 5,245 SF of Ledge and 1,703 SF of grass area. For the post development condition, excess surface stormwater generated by the impervious surfaces of the proposed construction shall be stored in a drainage detention structure to be constructed on-site which will have a controlled outlet structure entering the existing storm drain system on Nethermont Ave.

Pre-Development 25 Year Storm

The Soil Conservation Service's TR-20 method (a more accurate and precise calculation methodology than TR-55) as incorporated in the HydroCAD software was used to determine the pre-development and post-development runoff rates of the building, driveway and walkway areas.

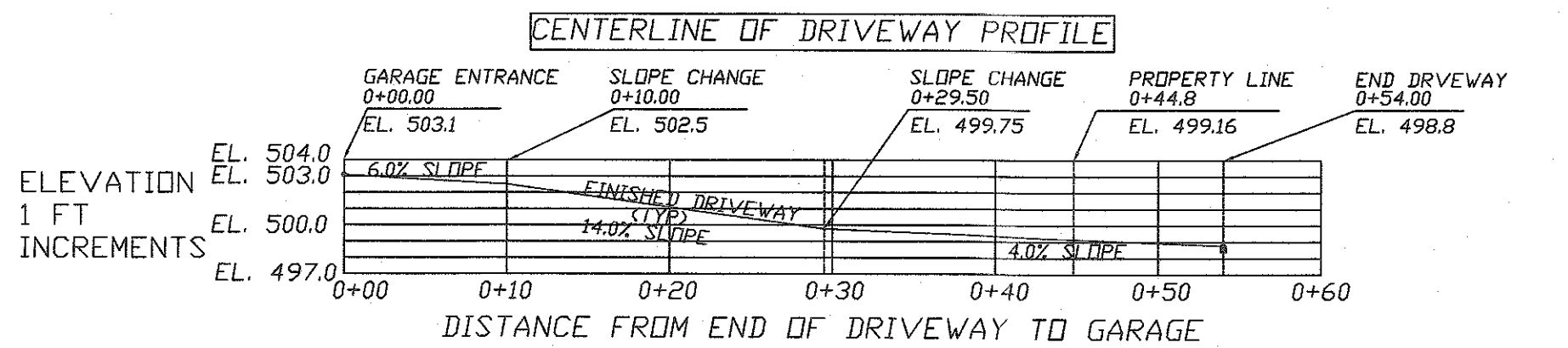
For purposes of calculations an area of 5,245 SF of Ledge and 1,703 SF of grass area was used. Runoff for pre-development is 1.58 cfs. using a 100 year storm. (9.23 inch rainfall).

Post-Development 25 Year Storm

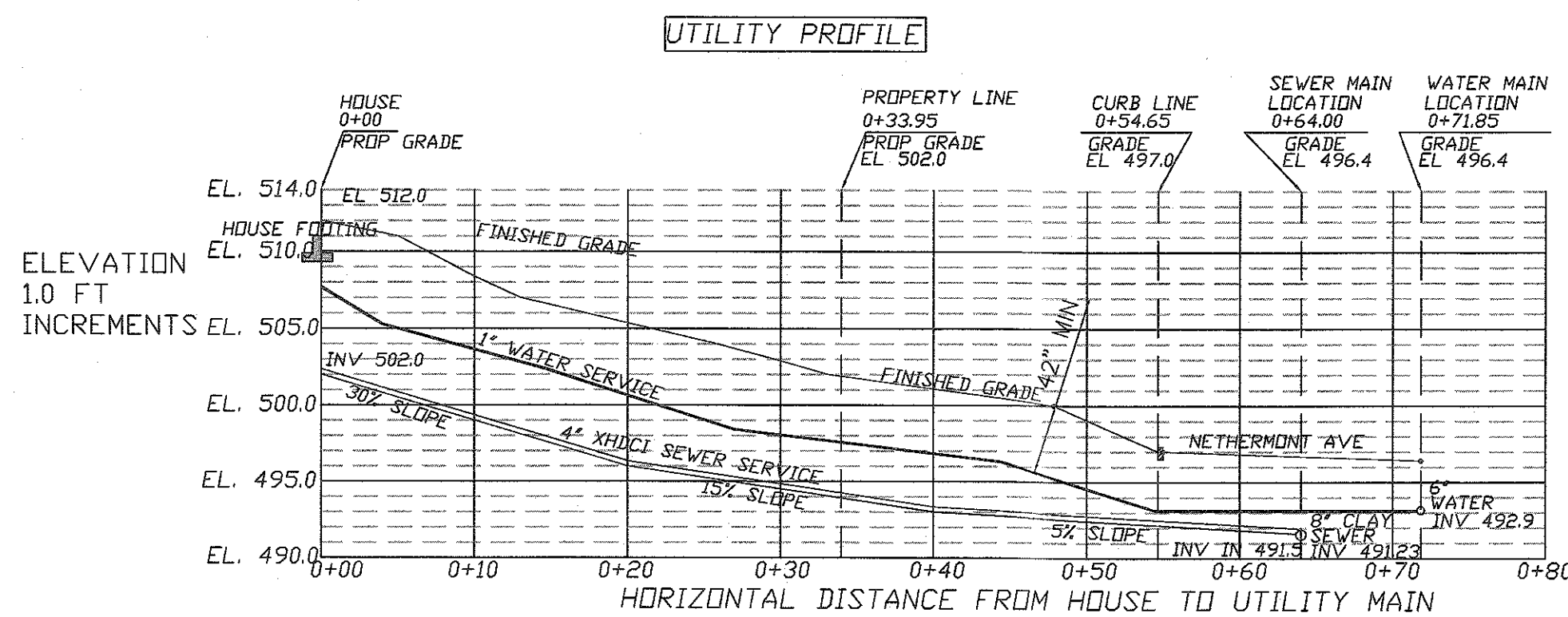
Runoff is to be mitigated by a system of 20 L.F. of 36" HDPE which will be connected to the roof leader system of the entire house. The outlet structure will control the outflow of the system. The entire system has been calculated to show that the outflow to the Village system will be approximately 1.42 cfs.

Design Storm (yr)	Total Pre-development Peak Runoff (cfs)	Total Post-development Peak Runoff (cfs) basin
25	1.58	1.42

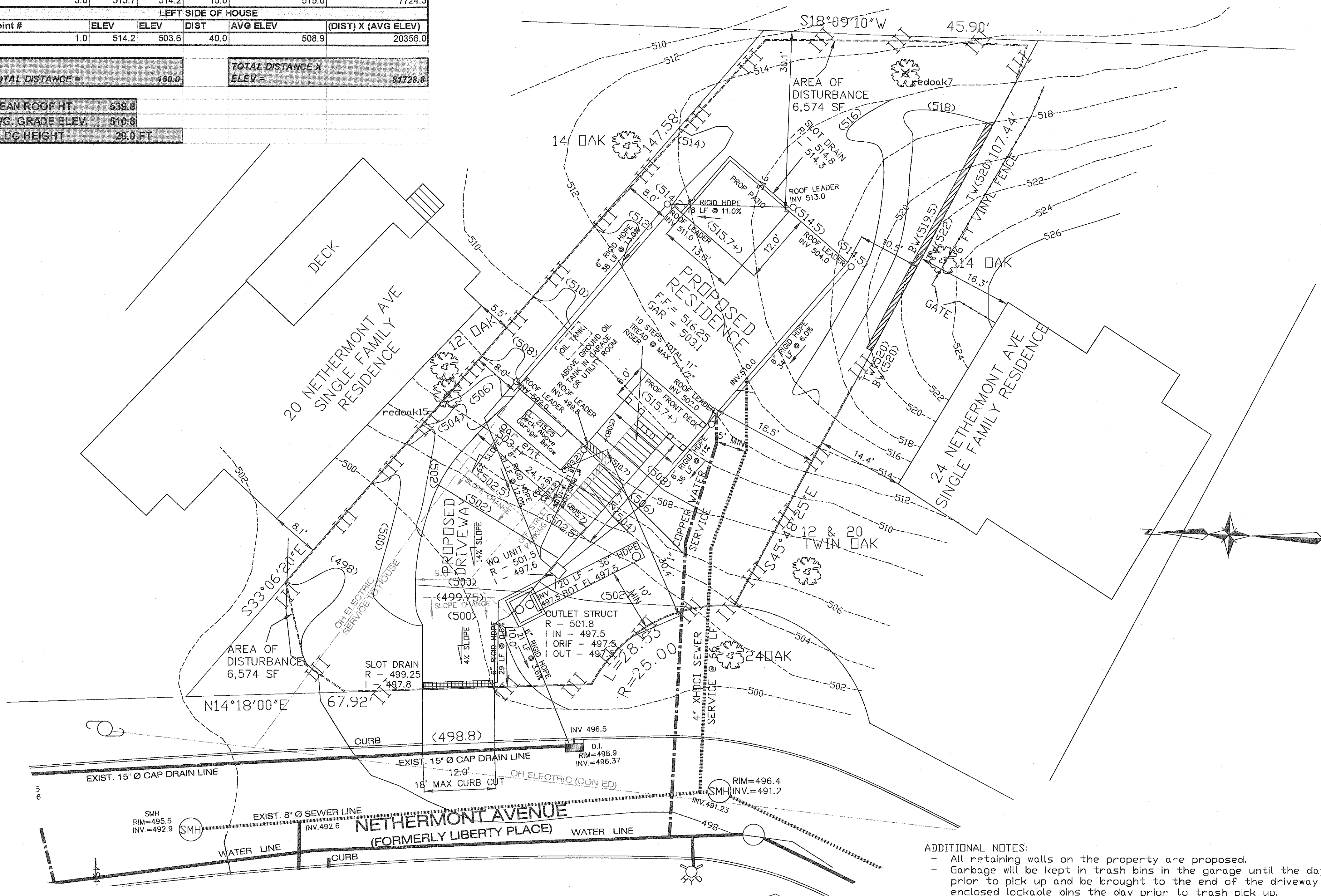
Given the Post Development basin routing runoff rates for the selected storms shown peak runoff has no significant net increase of those of the Pre-Development condition. It is concluded that the proposed design satisfactorily meets the Village regulation of no net increase in the rate of offsite storm water discharge.



SCALE: 1" = 10'



SCALE: 1" = 10'



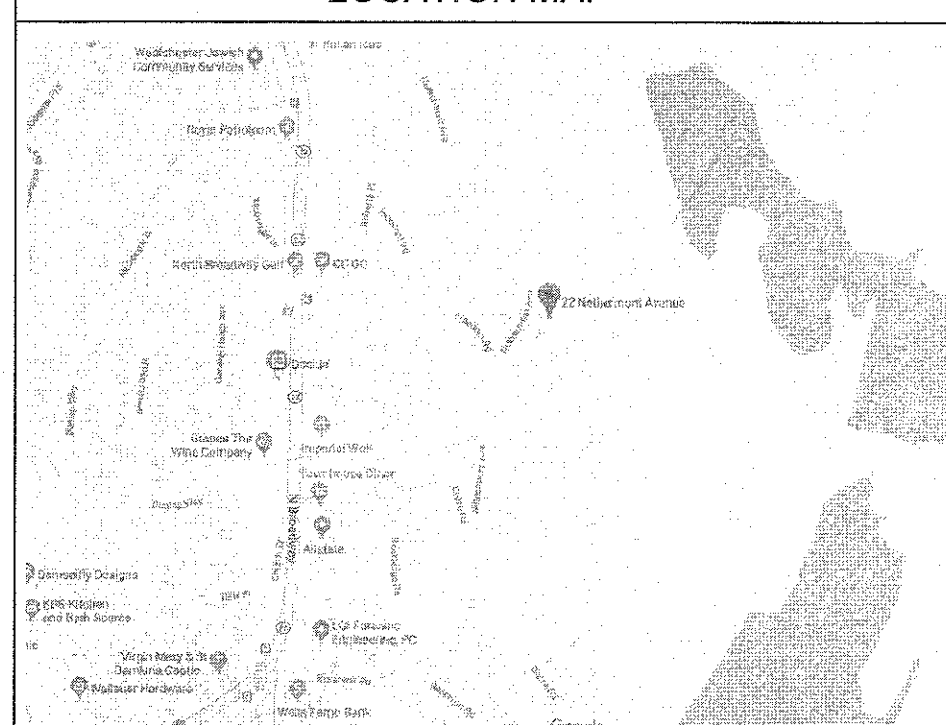
ADDITIONAL NOTES:

- All retaining walls on the property are proposed.
- Garbage will be kept in trash bins in the garage until the day prior to pick up and be brought to the end of the driveway in enclosed lockable bins the day prior to trash pick up.

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
- EXISTING GRADE (102)
- PROPOSED GRADE
- 14" TREE
- SIZE
- TREE TO BE REMOVED
- SILT FENCE or HAYBALES AS REQ'D

LOCATION MAP



NO	DATE	DESC	BY
1	03/10/2020	PB COMM	GC
NO			

REVISIONS

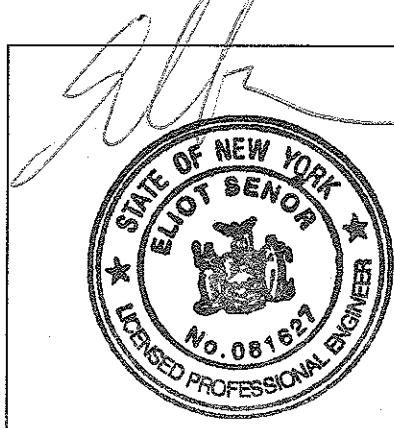
STORMWATER POLLUTION PREVENTION PLAN
PREPARED FOR: ODOARDI

ADDRESS: 22 NETHERMONT AVE
NORTH WHITE PLAINS, NY
TAX ID: SECTION 122.16 - TAX BLOCK 4 - LOT 7

SITUATED IN THE
TOWN OF NORTH CASTLE
WESTCHESTER COUNTY, NEW YORK

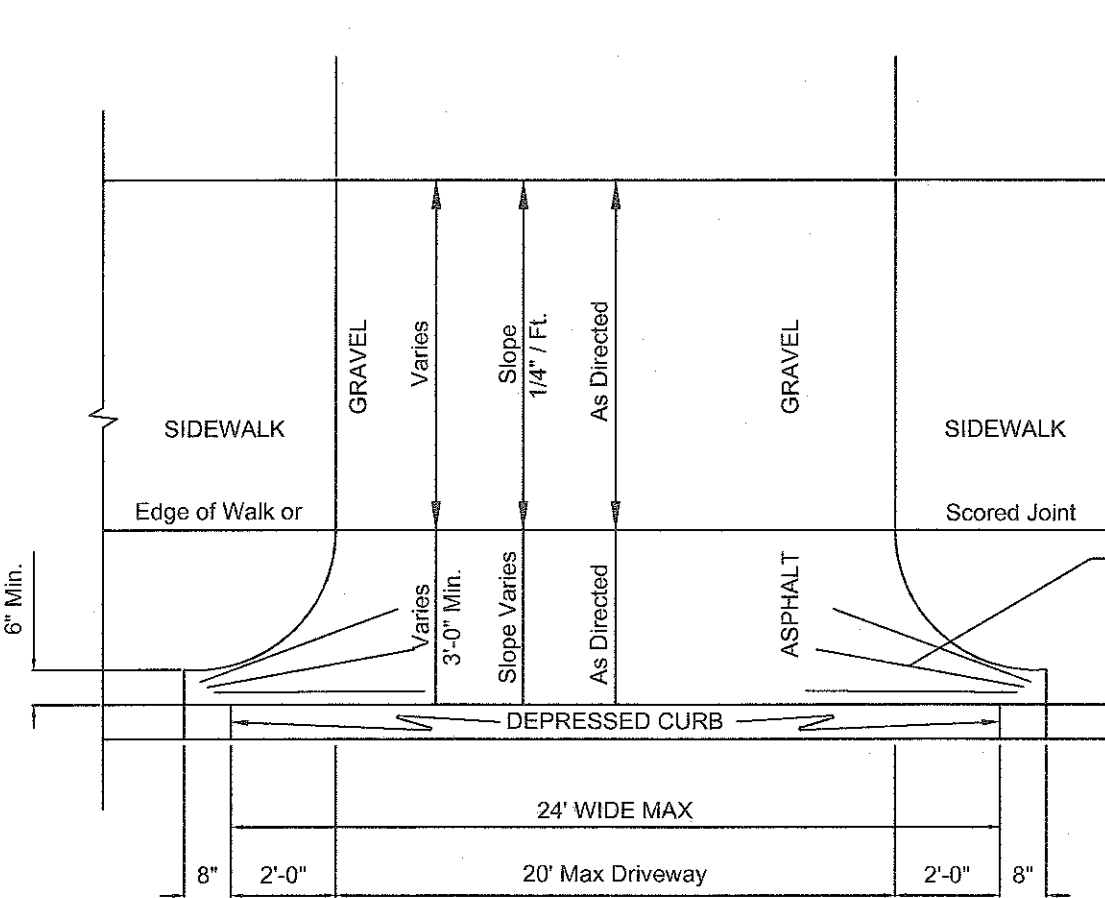
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GABRIEL E. SENOR, P.C.
CONSULTING ENGINEER LAND SURVEYORS
90 NORTH CENTRAL AVE., HARTSDALE, NEW YORK, 10530
(914) 422-0670 FAX 422-3009

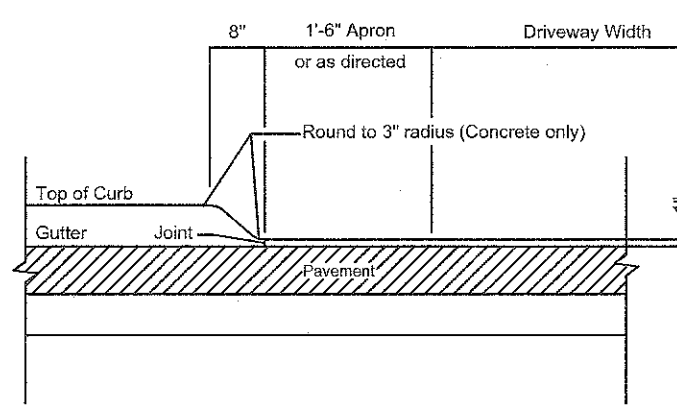


SCALE: 1" = 10'
DATE: JANUARY 10, 2020
DRAWN BY: GC
CHECKED BY: ES.

SW-1



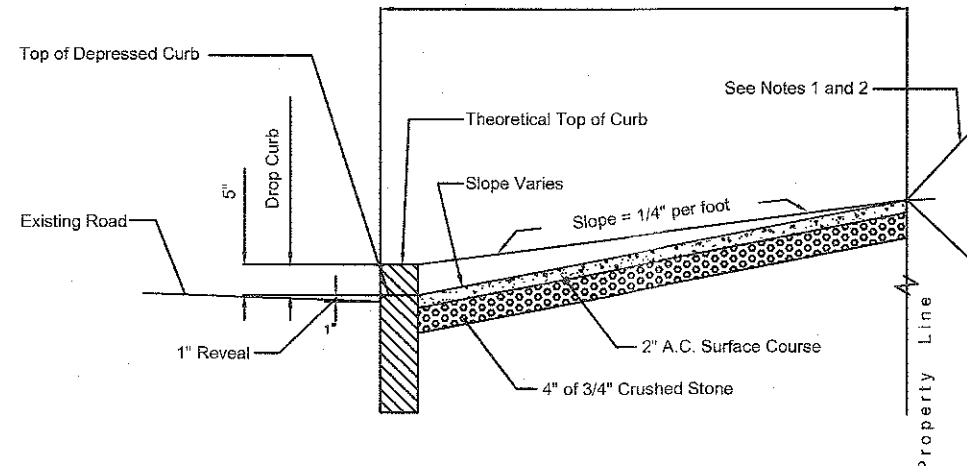
PLAN VIEW - RESIDENTIAL DRIVEWAY



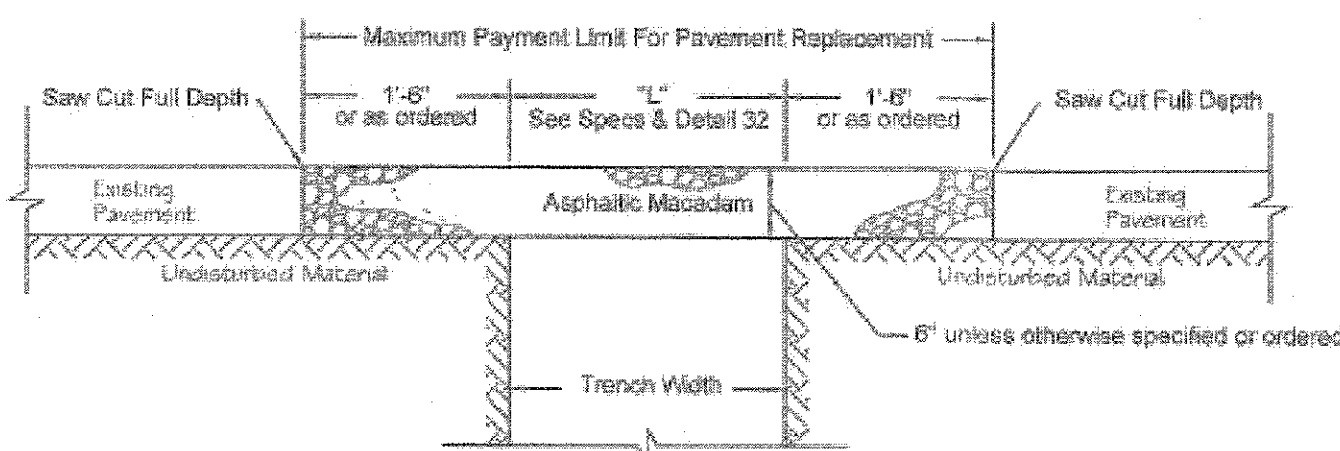
SECTION - DEPRESSED CURB

NOTE

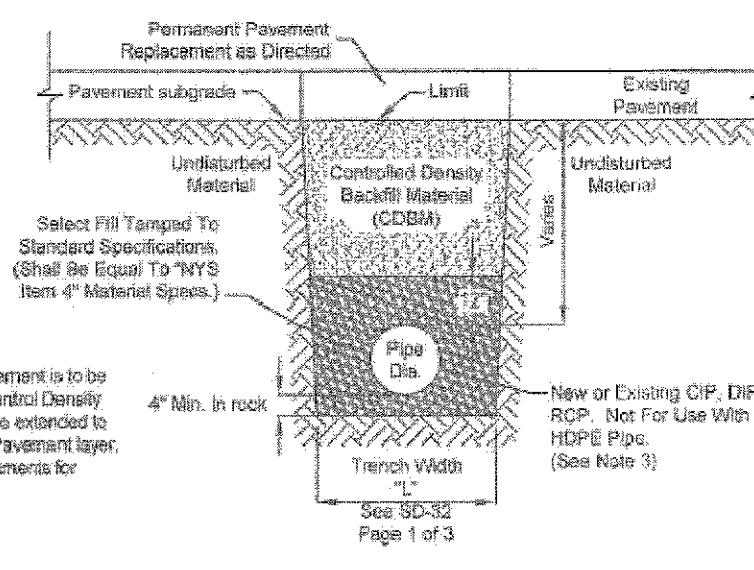
1. The base course shall consist of compacted 3/4" crushed stone.



SECTION AT ASPHALTIC CONCRETE DRIVEWAY WITH NO SIDEWALK



ASPHALTIC MACADAM PAVEMENT REPLACEMENT (Item 55) SCALE = N.T.S.

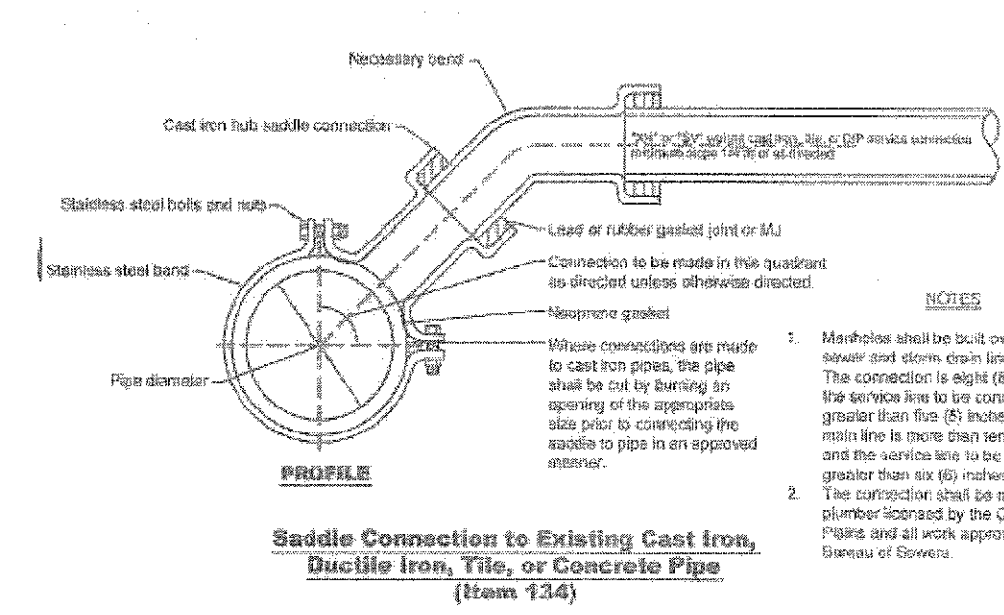


NOTE

When Temporary Pavement is to be placed over CDBM, Control Density Backfill Material shall be extended to bottom of Temporary Pavement layer. Refer to Contract Documents for additional information.

GENERAL NOTES:

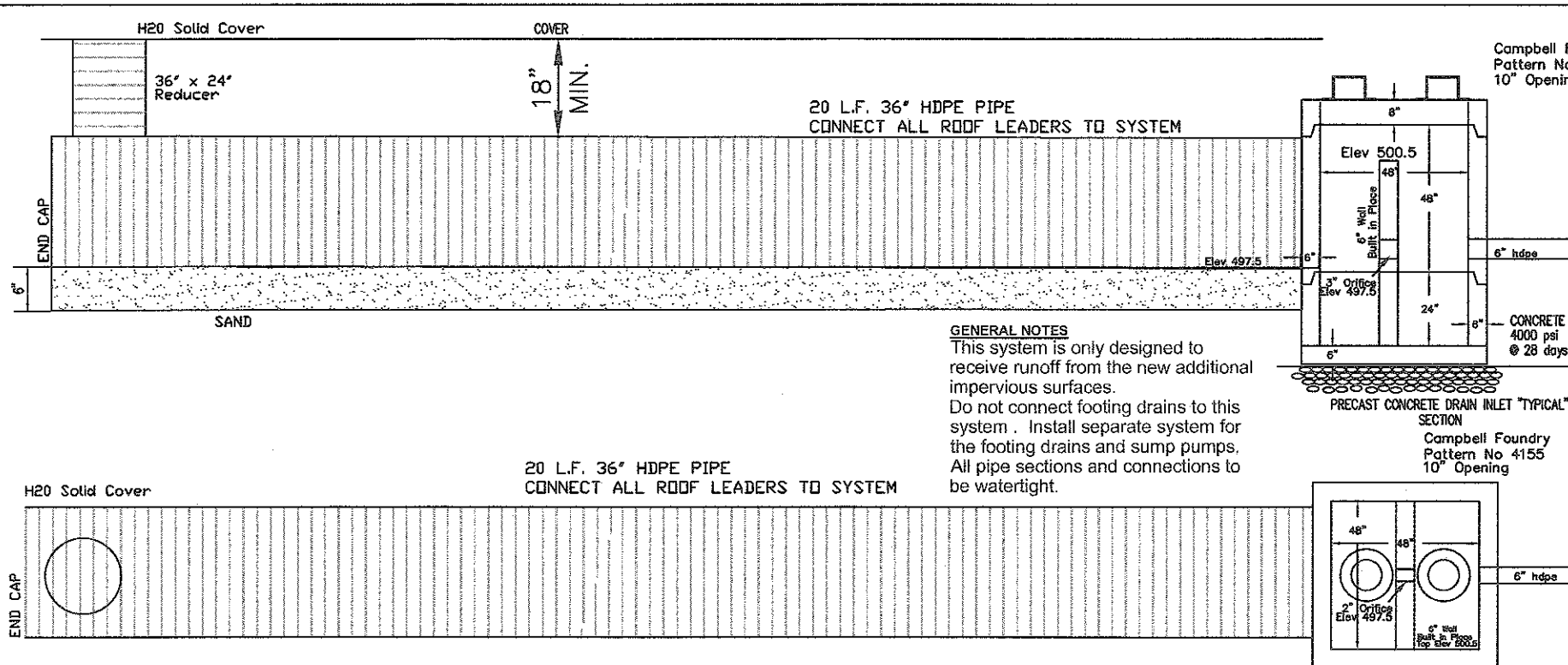
- See Contract Documents for the type of trench backfill required.
- No direct payment to be made for Select Fill or Controlled Density Backfill Material. Cost to be included in the various items bid. (See Contract Documents.)
- For HDPE pipe refer to "Trench Backfill", Page 3 of 3.



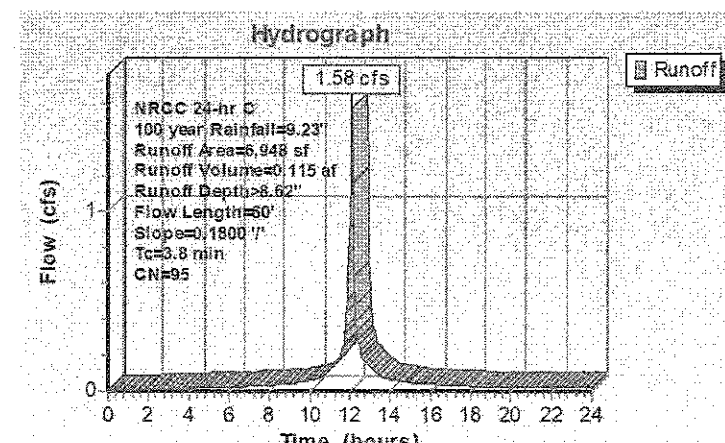
NOTE

- Manholes shall be built over sanitary sewer and storm drain lines when the connection is right at the manhole and the manhole is to be connected to the main line to the manhole. The manhole shall be made by a gasketed manhole or by a manhole of concrete.
- The connection shall be made by a gasketed manhole or by a manhole of concrete.

STORMWATER DETENTION SYSTEM AND CALCULATIONS

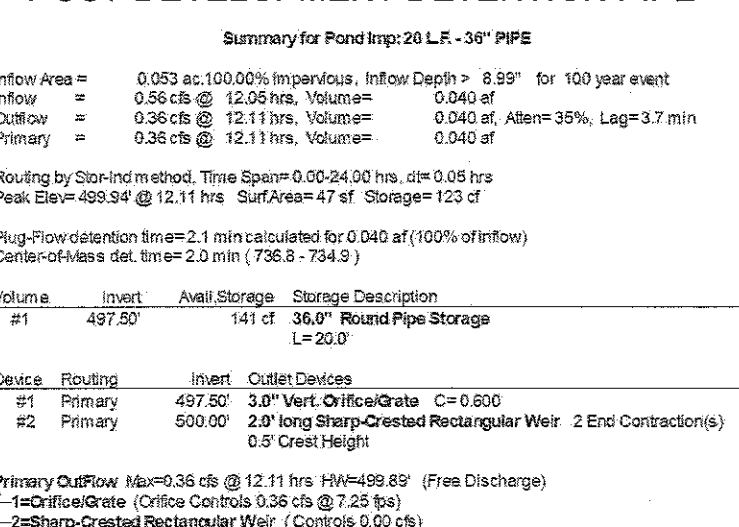


PRE-DEVELOPMENT

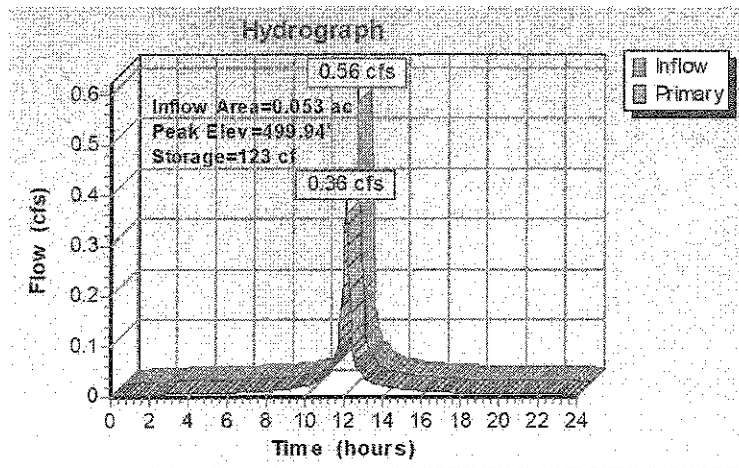
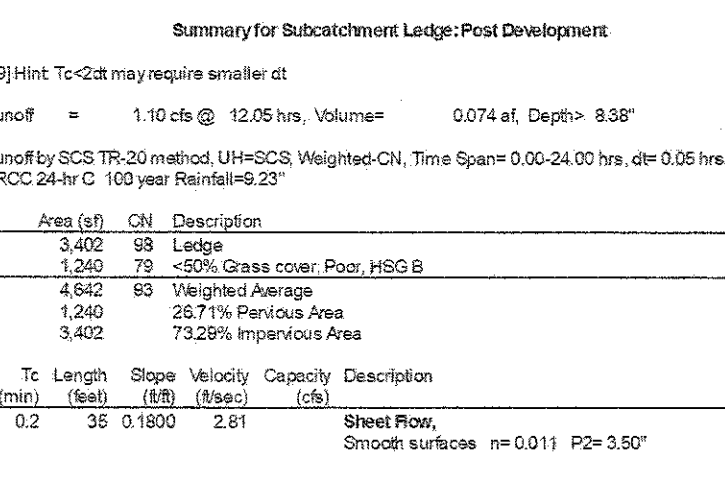


POST-DEVELOPMENT (SEE PRE AND POST DEVELOPMENT AREAS FOR DETAILS))

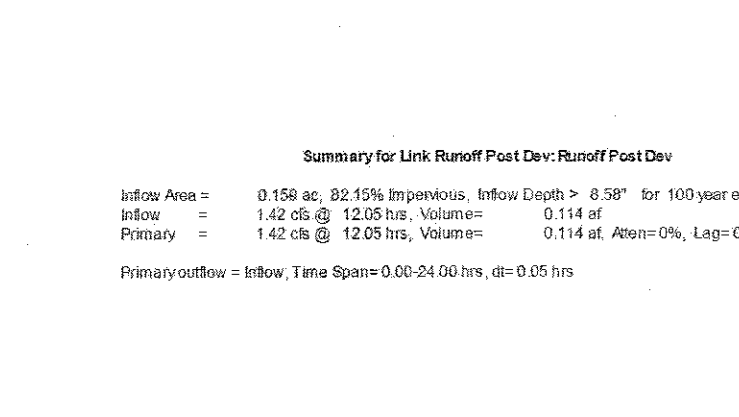
POST-DEVELOPMENT DETENTION PIPE



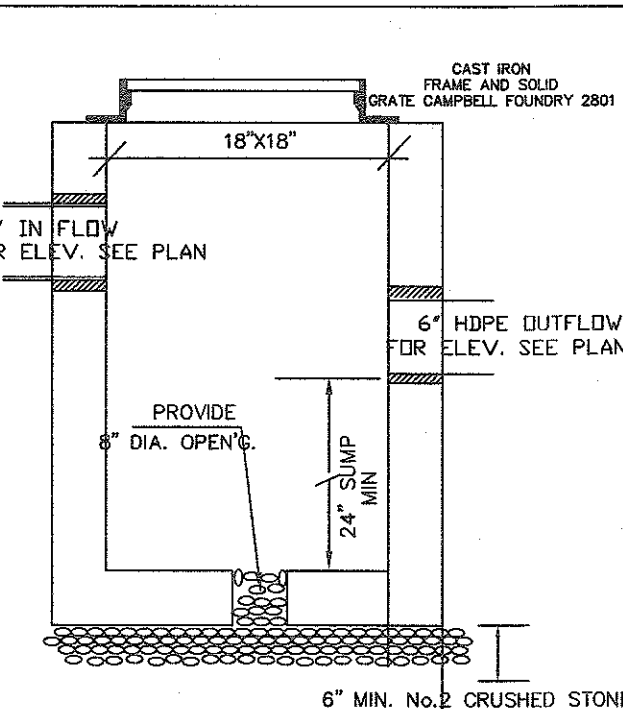
POST-DEVELOPMENT SURFACE RUNOFF



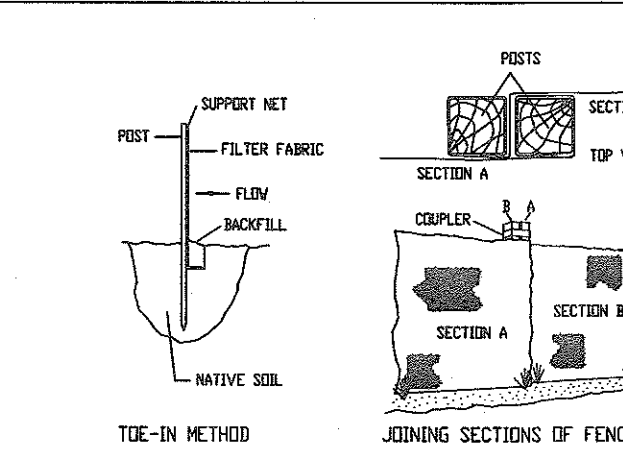
TOTAL POST-DEVELOPMENT



WATER QUALITY STRUCTURE (WQ) 18"X18"



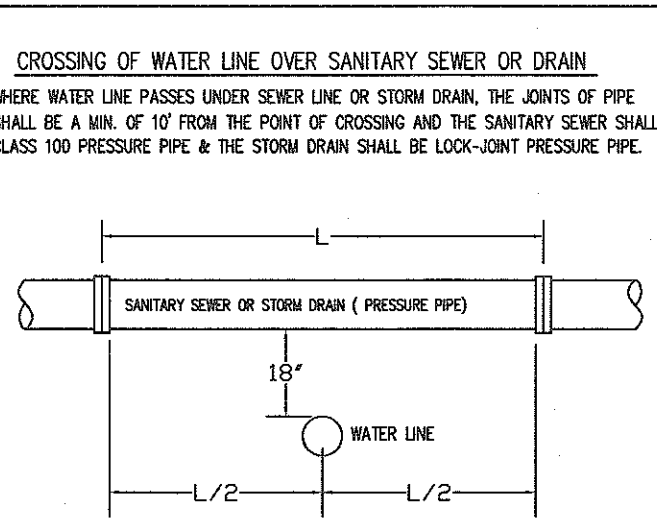
SILT FENCE (SF)



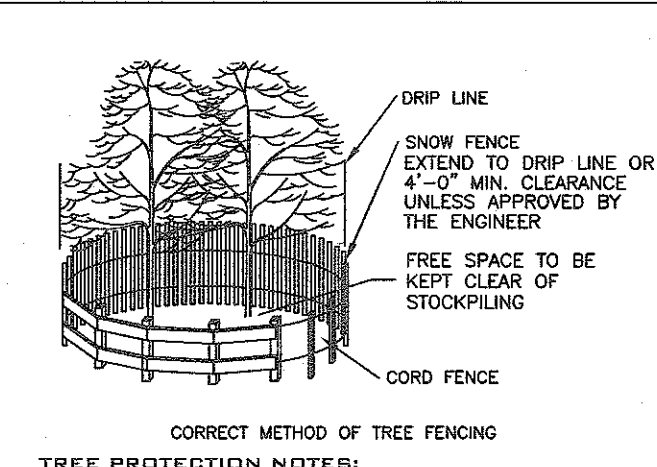
INSTALLATION NOTES

- EXCAVATE A 4 INCH x 4 INCH TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
- INSTALL A SECTION A AND B TRENCH ALONG THE PERIMETER OF THE SITE. THE TRENCH SHALL BE 4 INCHES DEEP AND 4 INCHES WIDE.
- BRING THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM.
- LAY THE 12-18 INCH FLAP OF FABRIC INTO THE UNDISTURBED BOTTOM OF THE TRENCH. STAPLE THE FABRIC TO THE TRENCH WALLS.
- JOIN SECTIONS AS SHOWN ABOVE.

CROSSING OF WATER LINE UNDER SANITARY SEWER OR DRAIN



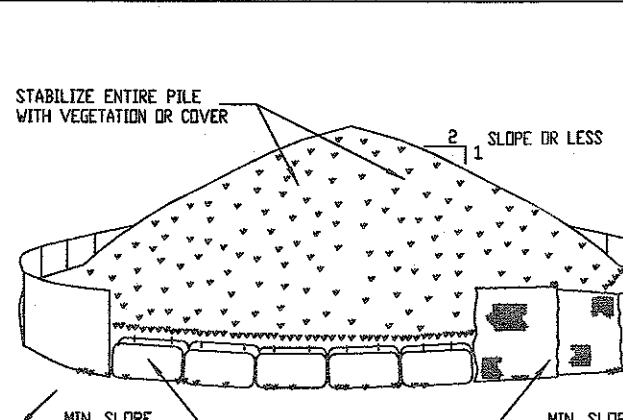
TREE PROTECTION



CORRECT METHOD OF TREE FENCING

- THE CONTRACTOR SHALL INSTALL TEMPORARY WOODEN TREE GUARDS AROUND EXISTING TREES WHERE NECESSARY PRIOR TO COMMENCING WORK. (SEE DETAIL.)
- THE CONTRACTOR SHALL FENCE TREES TO PROTECT ALL EXISTING TREES FROM THE WORK AREA. ANY EXISTING TREES WITHIN THE WORK AREA SHALL BE PROTECTED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO TREES DURING THE CONSTRUCTION OF THE PROJECT AND SHALL BE RESPONSIBLE FOR THE COST OF REPAIR OR REPLACEMENT OF ANY TREES DAMAGED DURING THE CONSTRUCTION OF THE PROJECT.
- ALL EXISTING TREES SHALL BE PROTECTED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO TREES DURING THE CONSTRUCTION OF THE PROJECT AND SHALL BE RESPONSIBLE FOR THE COST OF REPAIR OR REPLACEMENT OF ANY TREES DAMAGED DURING THE CONSTRUCTION OF THE PROJECT.
- ANY DAMAGE TO EXISTING TREES DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL REPLACE SUCH DAMAGED TREES TO THE SATISFACTION OF THE CITY AT THE CONTRACTOR'S EXPENSE.
- THE TREE PROTECTION SHALL BE INSTALLED PRIOR TO ANY WORK AND SHALL REMAIN UNTIL THE END OF ALL WORK.

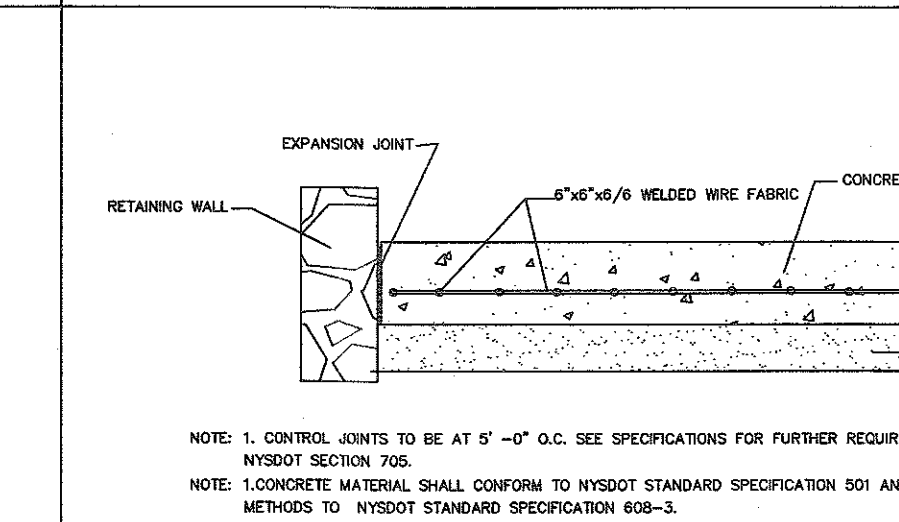
SOIL STOCKPILING (SS)



INSTALLATION NOTES

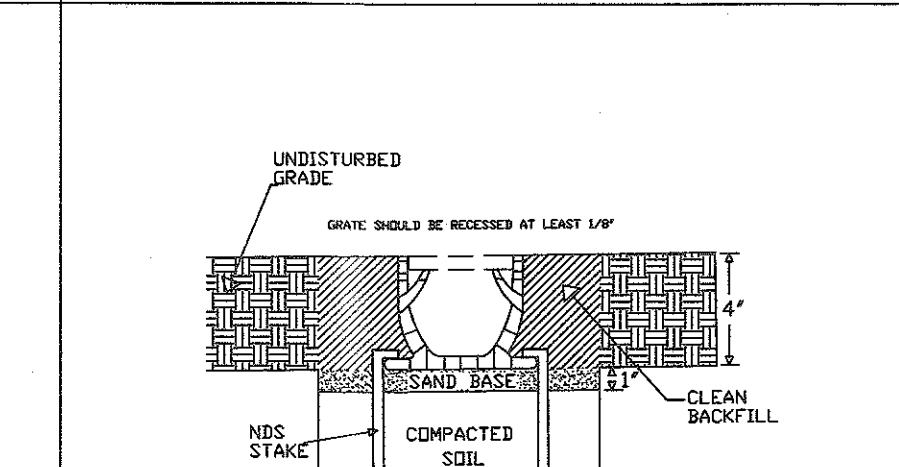
- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:1.
- UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH OTHER EARTH FENCING OR TRAPNETS, THEN STABILIZED WITH VEGETATION OR COVER.
- SEE SPECIFICATIONS (CHS MANUAL) FOR INSTALLATION OF SILTFENCE.

CONCRETE FRONT PLATFORM

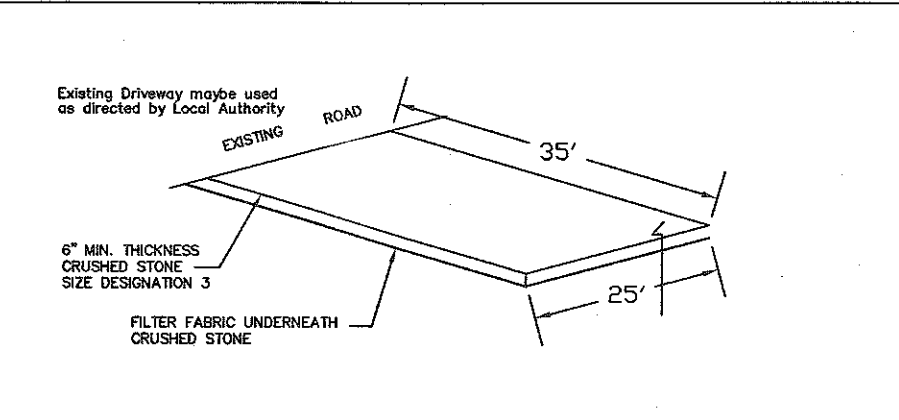


- NOTE: 1. CONTROL JOINTS TO BE AT 5'-0" O.C. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- NOTE: 2. CONCRETE MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS TO NYSDOT STANDARD SPECIFICATION 608-3.

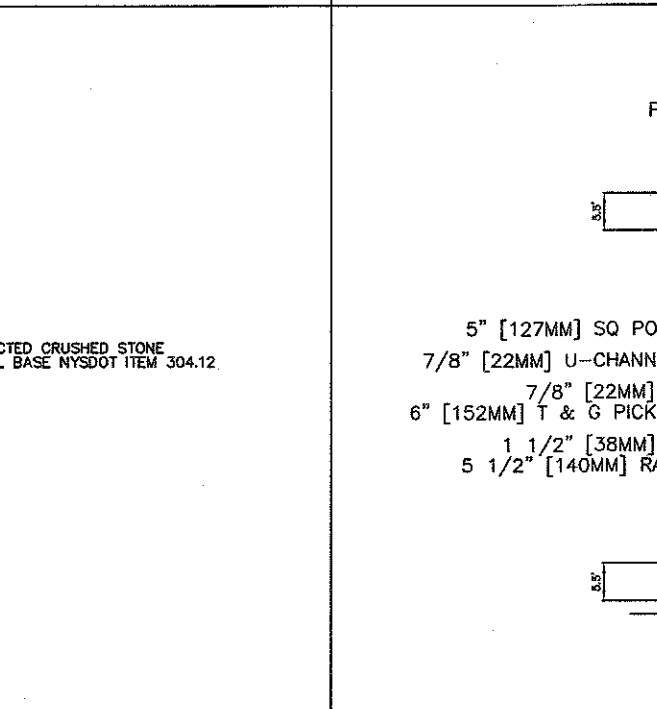
SLOT DRAIN



CONSTRUCTION ENTRANCE DETAIL (CE)



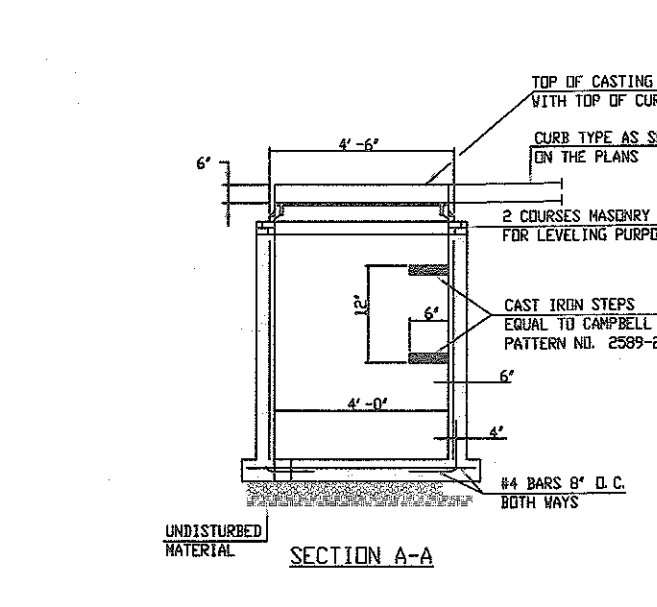
SOLID WHITE VINYL FENCE DETAIL



SOIL PROFILE PER USDA WEBSITE

Description of Paxton UpC Setting
Landform: Till plains, drumlinoid 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 crystalline rock
Typical profile:
H1 - 0 to 10 inches: Fine sandy loam
H2 - 10 to 20 inches: loam
H3 - 20 to 60 inches: gravelly sandy loam
Properties and qualities:
Slopes: 8 to 15 percent
Depth to restrictive feature: 18 to 38 inches to dense material
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.05 to 0.20 in/hr)
Depth to water table: About 18 to 30 inches

STORMWATER CONNECTION DETAIL



NO	DATE	DESC	BY
1	03/10/2020	PB COMM	GC

STORMWATER POLLUTION PREVENTION PLAN

PREPARED FOR: ODOARDI

ADDRESS: 22 NETHERMONT AVE
NORTH WHITE PLAINS, NY

TAX ID: SECTION 122.16 - TAX BLOCK 4 - LOT 7

SITUATED IN THE
TOWN OF NORTH CASTLE
WESTCHESTER COUNTY, NEW YORK

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GABRIEL E. SENOR, P.C.
CONSULTING ENGINEER LAND SURVEYORS
90 NORTH CENTRAL AVE., HARTSDALE, NEW YORK, 10630
(914) 422-0070 FAX 422-3009

SCALE: as shown
DATE: JANUARY 10, 2020
DRAWN BY: CHECKED BY:
GC ES.

SW-2

- Eastern Red Cedar
(Juniperus Virginiana)
- GIANT ARBORVITAE
(Thuja Plcata)
- Eastern Red Bud
(Cercis Canadensis)
- CHINEESE HOLLY
(Ilex crenata convexa)
- INKBERRY 'Shanrock'
(Ilex glabra 'Compacta')
- COMMON FLOWERING DOGWOOD
(Cornus florida)

TREES TO BE PLANTED		
TYPE/NAME	SIZE	COUNT
EASTERN RED CEDAR	2" - 3" CAL	2
GIANT ARBORVITA	6' - 7' HEIGHT	6
EASTERN REDBUD	2" - 3" CAL	2
CHINEESE HOLLY	3.5' - 4' HEIGHT	5
INKBERRY 'Shanrock'	2' - 2.5' HEIGHT	6
FLOWERING DOGWOOD	2.5" - 3" cal.	2

- 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
- 102
- EXISTING GRADE
- (102)
- PROPOSED GRADE
- 14 TREE
- SIZE
- TREE TO BE REMOVED
- III - III
- SILT FENCE
- or HAYBALES AS REQ'D

LOCATION MAP



NO	DATE	DESC	BY
1	03/10/2020	PB COMM	GC

LANDSCAPE PLAN

PREPARED FOR: ODOARDI

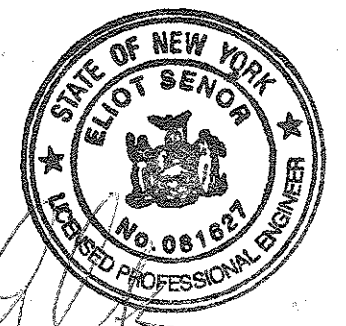
ADDRESS: 22 NETHERMONT AVE
NORTH WHITE PLAINS, NY

TAX ID: SECTION 122.16 - TAX BLOCK 4 - LOT 7

SITUATED IN THE
TOWN OF NORTH CASTLE
WESTCHESTER COUNTY, NEW YORK

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CONSULTING ENGINEER LAND SURVEYORS
90 NORTH CENTRAL AVE., HARTSDALE, NEW YORK, 10530
• (914) 422-0070 FAX 422-3009



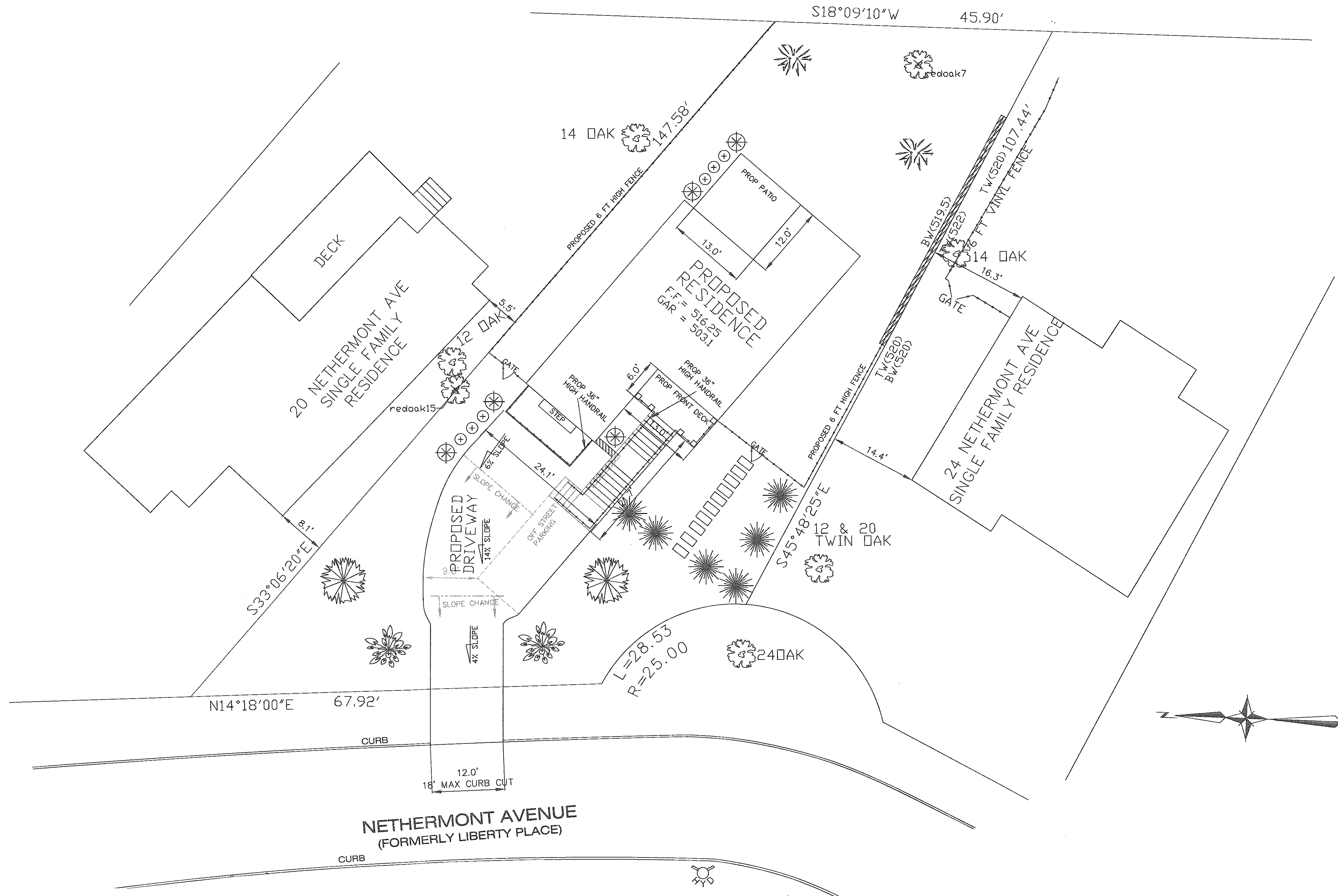
SCALE: 1" = 10'

DATE: JANUARY 10, 2020

DRAWN BY: GC

CHECKED BY: ES.

LS-1

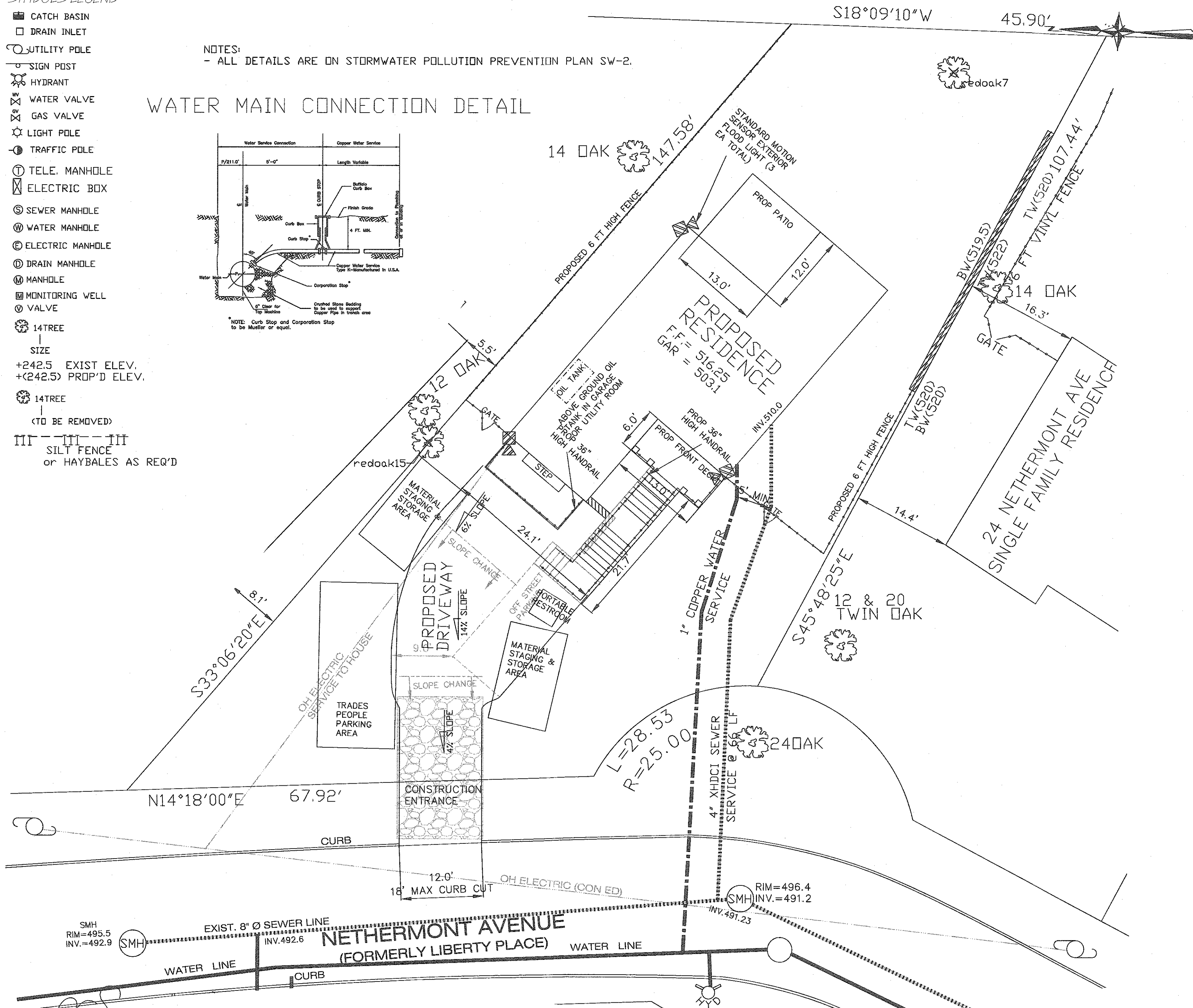
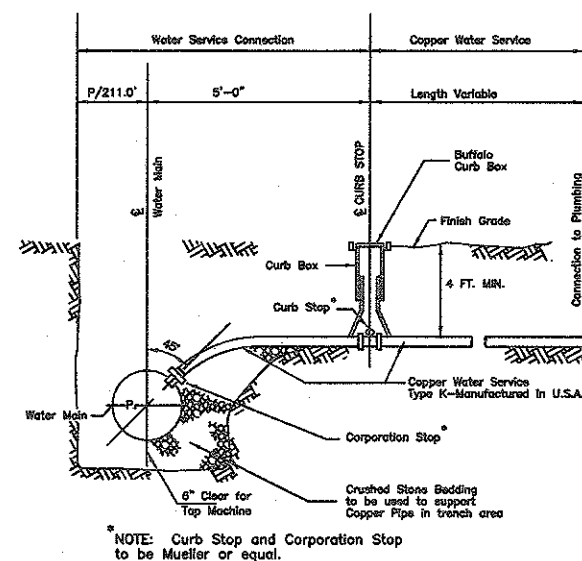


SYMBOLS LEGEND

- CATCH BASIN
□ DRAIN INLET
○ UTILITY POLE
○ SIGN POST
○ HYDRANT
○ WATER VALVE
○ GAS VALVE
○ LIGHT POLE
○ TRAFFIC POLE
○ TELE. MANHOLE
□ ELECTRIC BOX
○ SEWER MANHOLE
○ WATER MANHOLE
○ ELECTRIC MANHOLE
○ DRAIN MANHOLE
○ MANHOLE
□ MONITORING WELL
○ VALVE
○ 14 TREE
|
SIZE
+242.5 EXIST ELEV.
+242.5 PROP'D ELEV.
○ 14 TREE
|
(TO BE REMOVED)
III - III - III
SILT FENCE
or HAYBALES AS REQ'D

NOTES:
- ALL DETAILS ARE ON STORMWATER POLLUTION PREVENTION PLAN SW-2.

WATER MAIN CONNECTION DETAIL



GABRIEL E. SENOR, P.C.
Engineer & Surveyor

90 NORTH CENTRAL AVE., HARTSDALE, NEW YORK 10530
(914) 422-0070

JOB NUMBER: R.D.3058-14

NOTES:

Locations, sizes and descriptions of all utilities are based on field survey location of surface appurtenances and available record plate data. Same is subject to scale and method limitations. Exact location for existing service installations may require verification by the respective utility companies (call 800-962-7962) and by excavation. The location, material and size of existing underground improvements or encroachments hereon are not certified underground routing cannot be guaranteed. Exact connections for existing service installations may require verification by excavation or dye testing. Such tests will be subject to additional fee based on time. Underground utilities may not always follow a straight line between surface appurtenances and should be confirmed by excavation and the respective companies. Please note that there are usually no utility company records of the location of on-site utilities connections.

1	03/10/2020	PB COMM	GC

MATERIAL STAGING AND
UTILITY PLAN

TAX ID: SECTION 122.16
BLOCK 4 LOT 7

AS SHOWN ON THE OFFICIAL TAX MAP OF
NORTH CASTLE
LOCATED IN THE
TOWN OF NORTH CASTLE
P.O. BOX: WHITE PLAINS, NY
WESTCHESTER COUNTY, NEW YORK.

NOTE: CONTOUR ELEVATIONS ARE ASSUMED.

GABRIEL E. SENOR, P.C.

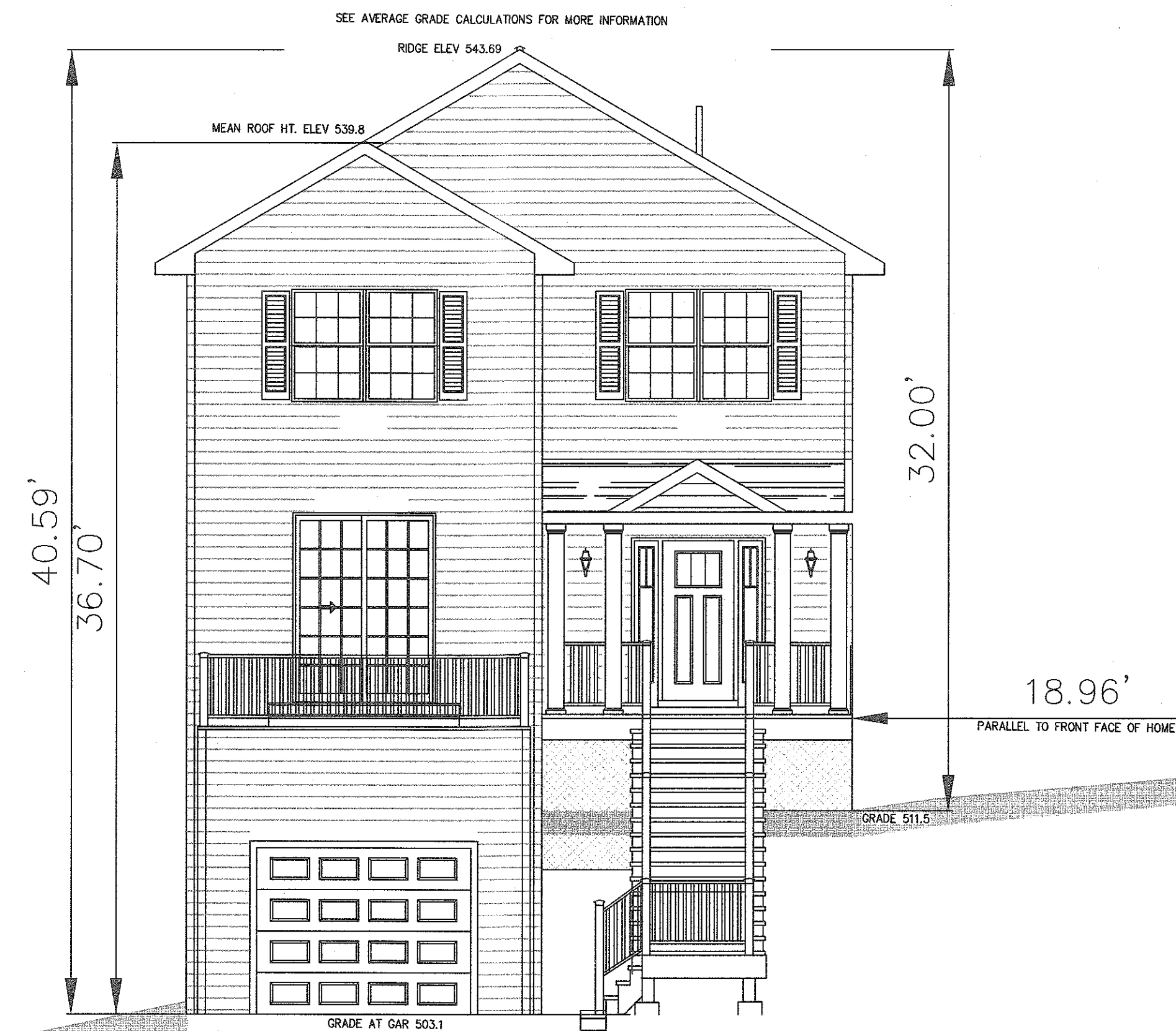
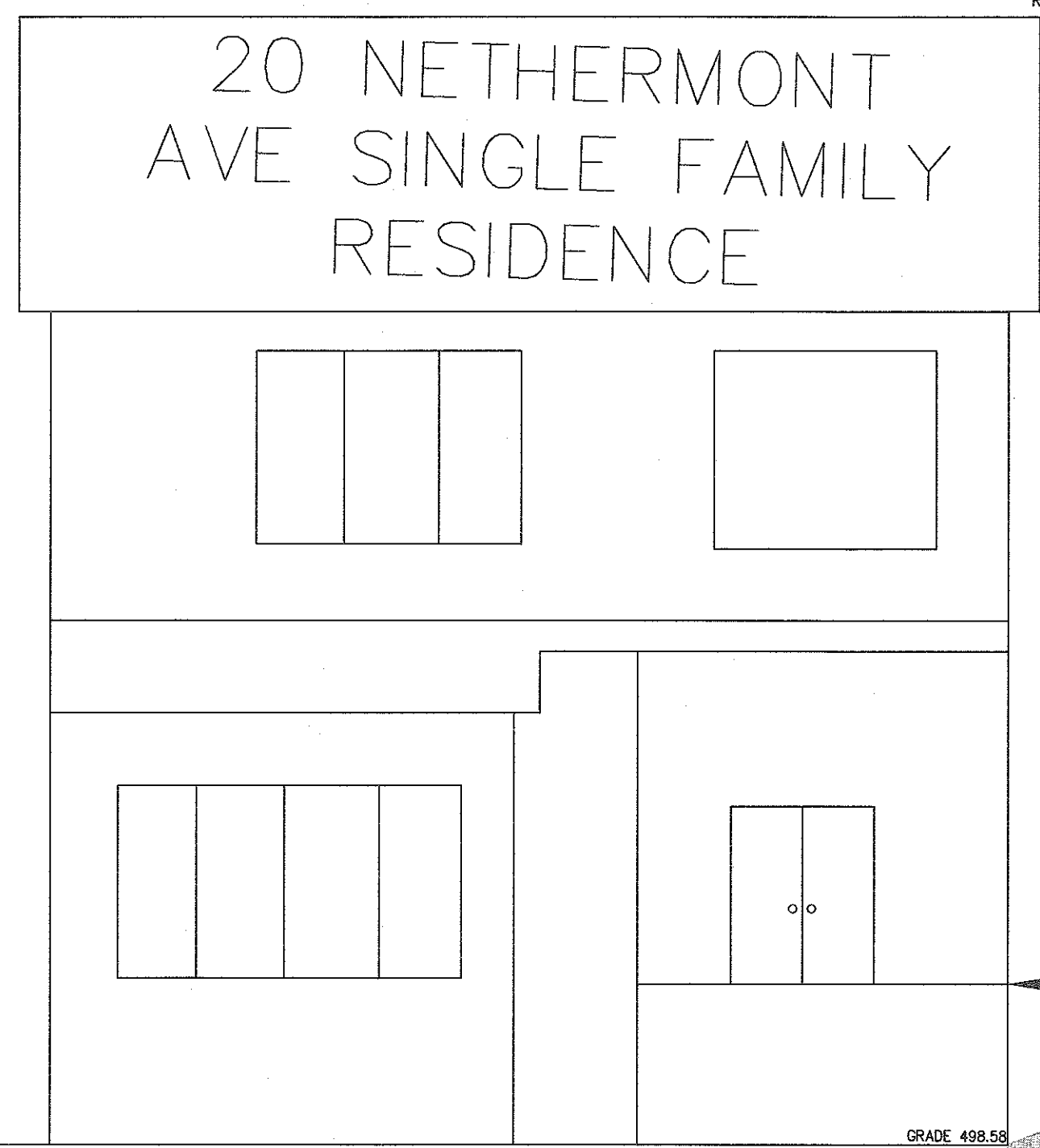
CONSULTING ENGINEER • LAND SURVEYORS
90 NORTH CENTRAL AVE., HARTSDALE, NEW YORK, 10530
(914) 422-0070 FAX 422-3009



SCALE: 1" = 10'
DATE: JANUARY 11, 2020
DRAWN BY: GC
CHECKED BY: ES.

MS - 1

SHEET 5 of 5



NO	DATE	DESC	BY
REVISIONS			

BUILDING HEIGHT EXHIBIT

PREPARED FOR: ODOARDI

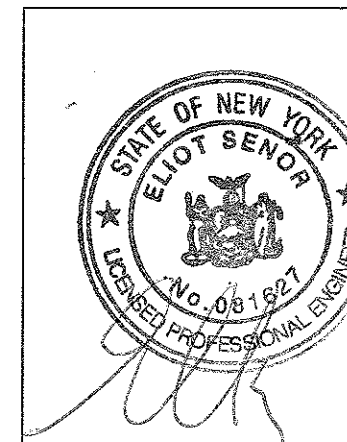
ADDRESS: 22 NETHERMONT AVE
NORTH WHITE PLAINS, NY

TAX ID: SECTION 122.16 - TAX BLOCK 4 - LOT 7

SITUATED IN THE
TOWN OF NORTH CASTLE
WESTCHESTER COUNTY, NEW YORK

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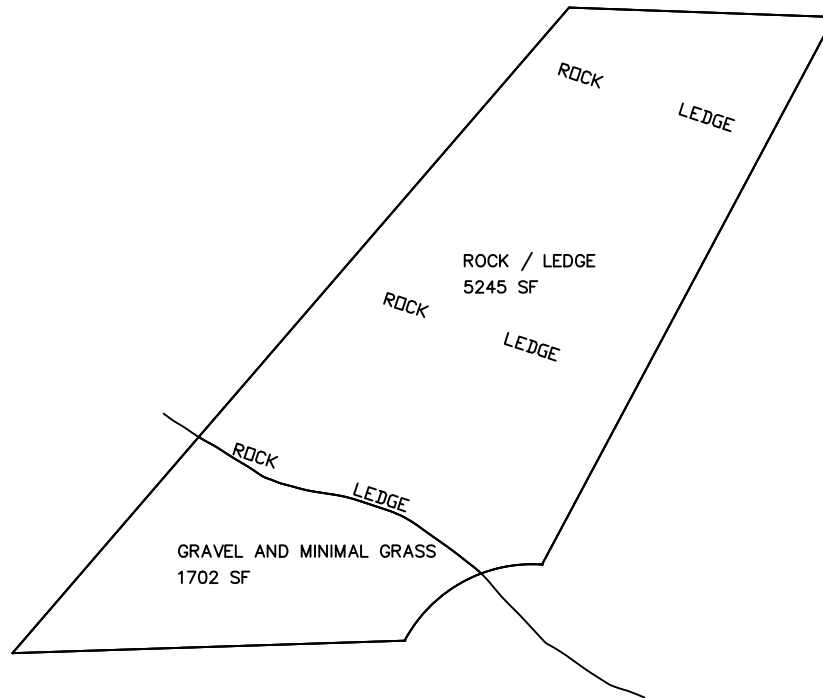
GABRIEL E. SENOR, P.C.
CONSULTING ENGINEER LAND SURVEYORS
90 NORTH CENTRAL AVE., HARTSDALE, NEW YORK, 10530
• (914) 422-0070 FAX 422-3009



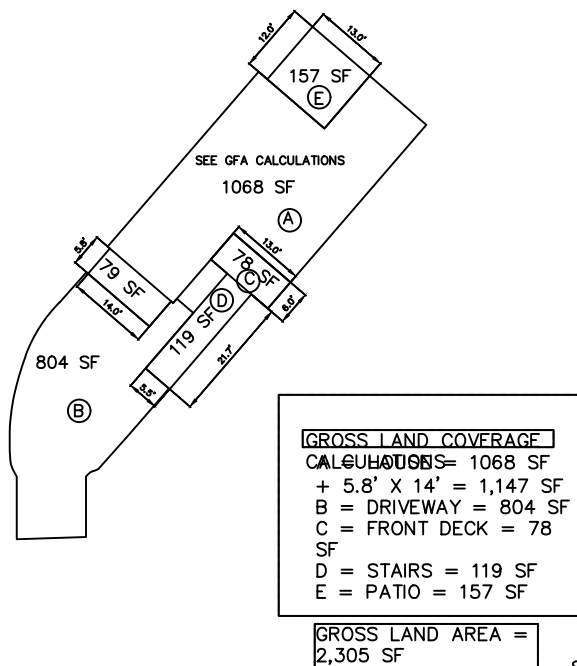
SCALE: 1" = 5'
DATE: JULY 30, 2020
DRAWN BY: GC
CHECKED BY: ES.

BH-1

22 NETHERMONT
PRE DEVELOPED AREAS USED IN
CALCULATIONS



THE GROSS LAND COVERAGE IS EQUAL TO THE AMOUNT OF IMPERVIOUS SURFACE BEING CAPTURED BY THE DETENTION SYSTEM. ACCORDING TO THE GROSS LAND COVERAGE WORKSHEET, THE TOTAL IMPERVIOUS SURFACE OF THE LOT BEING CAPTURED BY THE DETENTION PIPE IS 2,305 SF. THIS VALUE IS BEING USED AS THE "POST DEVELOPMENT ADDITIONAL IMPERVIOUS SURFACE" AREA IN HYDROCAD.



NOW WE HAVE TO SUBTRACT OUT THE AREA OF IMPERVIOUS SURFACE LOCATED WITHIN THE AREA DEFINED AS LEDGE PRE CONSTRUCTION, SINCE THAT IS NOW BEING CAPTURED BY THE DETENTION SYSTEM. THE AREA WE ARE LEFT OVER WITH IS THE AREA OF LEDGE POST CONSTRUCTION.

TOTAL AREA OF LEDGE PRE CONSTRUCTION
 - IMPERVIOUS SURFACE AREA WITHIN THE
 LEDGE LIMITS BEING CAPTURED BY THE
 DETENTION PIPE =
 TOTAL AREA OF LEDGE POST CONSTRUCTION

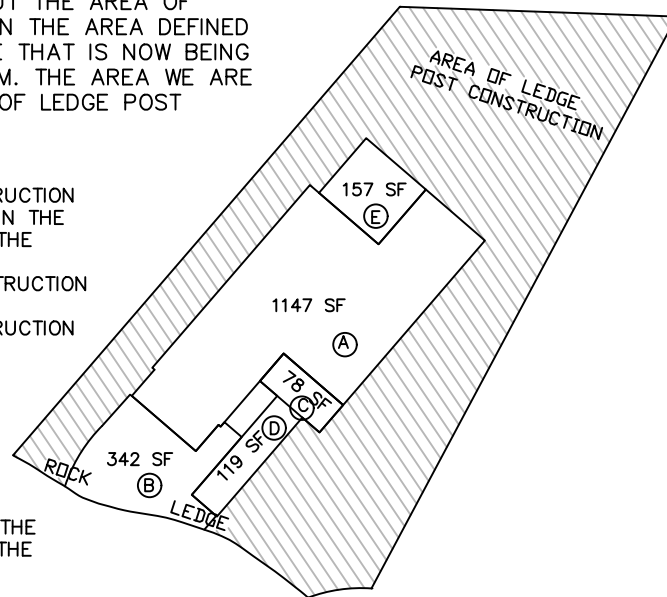
TOTAL AREA OF LEDGE PRE CONSTRUCTION
 = 5,245 SF

A = HOUSE = 1,147 SF
 B = DRIVEWAY = 342 SF
 C = FRONT DECK = 78 SF
 D = STAIRS = 119 SF
 E = PATIO = 157 SF

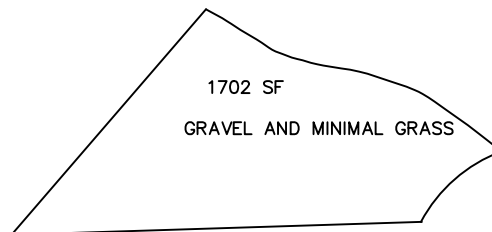
IMPERVIOUS SURFACE AREA WITHIN THE
 LEDGE LIMITS BEING CAPTURED BY THE
 DETENTION PIPE = 1,843 SF

5,245 sf - 1,843 sf = TOTAL AREA OF
 LEDGE POST CONSTRUCTION

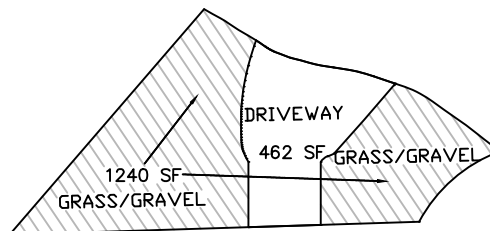
TOTAL AREA OF LEDGE POST CONSTRUCTION
 = 3,402 SF



THE FINAL AREA TO ACCOUNT FOR IN OUR CALCULATIONS IS THE TOTAL AREA OF GRAVEL/GRASS POST CONSTRUCTION. OUR PRE DEVELOPMENT CALCULATIONS TOLD US THAT THE TOTAL AREA OF GRAVEL/GRASS IS 1,702 SF. 15% OF THE AREA WAS GRAVEL AND 85% OF THE AREA WAS GRASS.

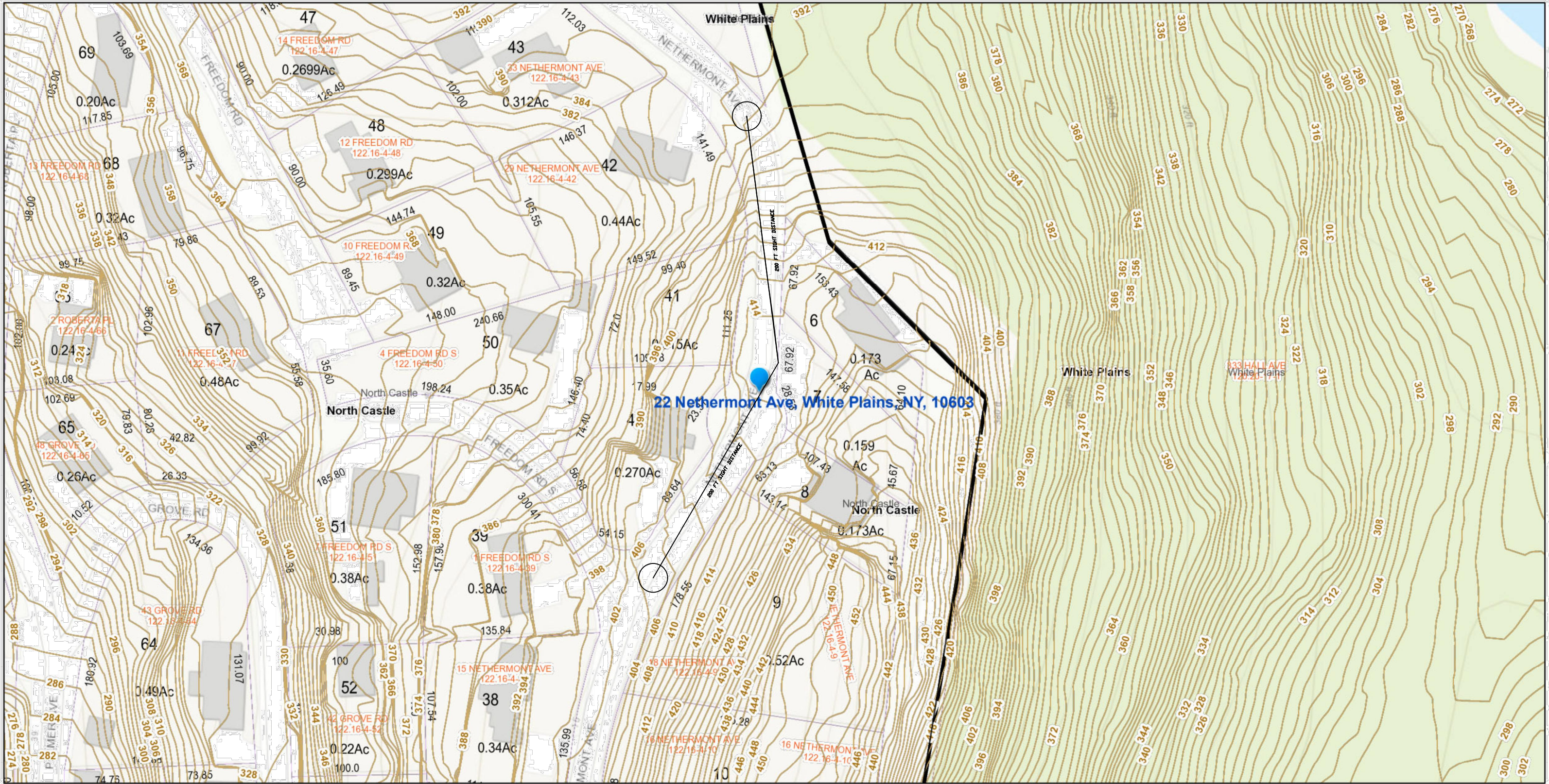


OUR POST DEVELOPMENT CALCULATIONS SHOW US THAT THERE IS 1,240 SF OF GRASS/GRAVEL AREA REMAINING POST CONSTRUCTION. WHICH CAN BE OBTAINED BY:
 1,702 SF - 462 SF (DRIVEWAY AREA) = 1,240 SF OF GRASS/GRAVEL.



1,240 SF OF GRASS/GRAVEL IS
 USED IN THE POST
 DEVELOPMENT CALCULATIONS.

Mapping Westchester County



District Boundaries



Municipal Boundaries



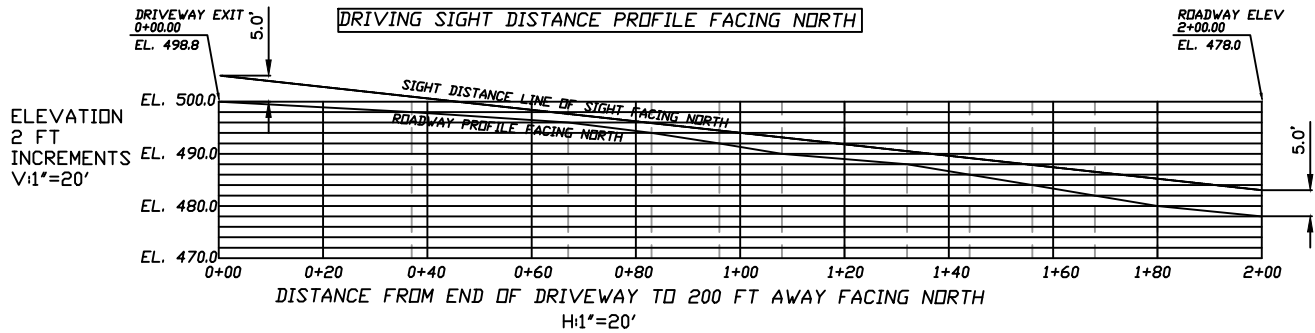
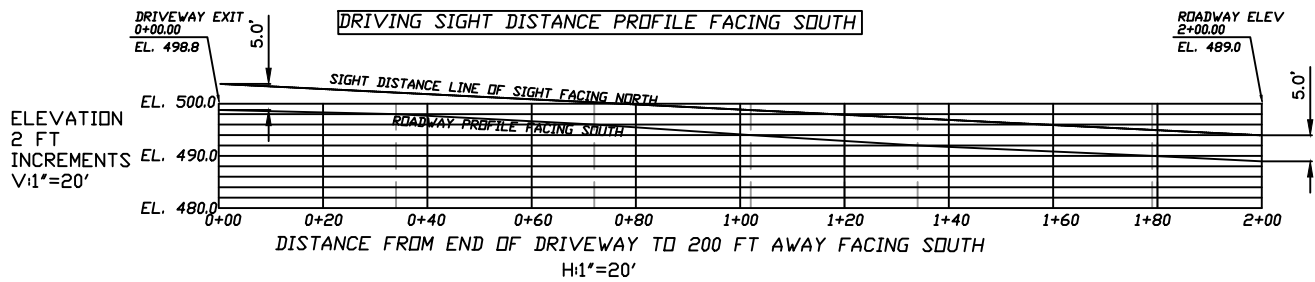
1:1,128

August 2, 2020



GIS GEOGRAPHIC INFORMATION SYSTEMS
<http://giswww.westchestergov.com>
 Michaelian Office Building
 148 Martine Avenue Rm 214
 White Plains, New York 10601

SIGHT DISTANCE PROFILES





June 23, 2020

Alan R. Kaufman, AICP
Director of Planning
Town of North Castle
17 Bedford Rd.
Armonk, NY 10504

**Re: Letter Report – Geotechnical Investigation
22 Nethermont Avenue
White Plains, New York**

Dear Mr. Kaufman:

As described by our April 2, 2020 proposal, this letter report outlines the findings resulting from the drilling of one (1) geotechnical boring within the open lot at the above referenced address, for the purpose of constructing a new two-story residence. One (1) geotechnical boring was drilled on Tuesday, June 22, 2020 by Municipal Testing Laboratory, Inc. (MTL), by a Portable Gas-Powered Drill Rig, under continuous inspection by Messrs. Haykel Melaouhia, Ph. D. and Aflaaz Saleem of Geotechnical Engineering Services, P.C. (GES). We understand the proposed construction includes a new two-story single-family house, with a garage and driveway in front, and rear porch, located 22 Nethermont Avenue, in Westchester County, White Plains, New York. The site is currently undeveloped, and currently covered by exposed bedrock, trees and grass.

Please refer to our attached Boring Location Plan for the approximate as-drilled location of the boring, as well as a typed boring log for the stratigraphy and sample descriptions. Elevations noted on the base plan for the Boring Location Plan are based on an “Existing Conditions, Removals, Erosion Control and Steep Slopes Plan”, which shows “assumed” ground surface elevations range across the site from about el. +522 (near the southeast corner of the proposed new building) to about el. +499 at street level. No datum for these elevations was provided in any of the drawings provided to us. GES did not perform any surveying, and measurements of the boring location in this letter report are from fixed points. Boring B-1 was performed from about el. +517, and elevations referenced in this letter report refer to the Plan discussed above.

METHODOLOGY

One (1) geotechnical boring, referred to as B-1, was drilled in approximately the location shown on the attached Boring Location Plan, as measured from fixed locations around the property. The boring was drilled utilizing the mud-rotary drilling method. Since there was only a small amount of fill overlying bedrock, no soil samples were obtained, and core drilling was performed from ground surface, first using an oversized 4-inch-diameter single tube core barrel, then an NX-Size,

double tube, core barrel, with a diamond bit, for which the length of Core Recovery (REC)¹ and the Rock Quality Designation (RQD)² were recorded. All rock samples were transported to GES's Office for classification and storage.

FINDINGS

The following general descriptions of the subsurface strata are based on our interpretations of the results of the field investigation. The purpose for our investigation was to take rock core samples of the bedrock. SPT split-spoon sampling was not relevant to this particular investigation, and therefore was not performed:

Stratum 1 – Fill: The Fill generally consists of a very thin layer of brown topsoil, with rock fragments and gravel, with varying amounts of sand and silt, as is indicative of miscellaneous fill. No soil samples were taken within this stratum. The fill generally covers the surface of the rock. Soil description is based on the appearance of cuttings at the top of the boring.

Stratum 2 – Bedrock: Other than a six-inch zone of weathered rock, from a depth of about 1 to 1.5 feet below grade (about el. +516 to +515.5, respectively), generalized subsurface conditions at the boring location consist of intermediate to hard, slightly weathered, gray and light brown Granite, with trace amounts of schist, and weathered joints. Rock Core Recovery ranged from 60 to 100 percent, while RQD ranged from 43 to 100 percent. Boring B-1 was terminated at a depth of about 10.5 feet, after extending to and at least five (5) feet into competent bedrock, to about el. +506.5.

RECOMMENDATIONS

Based on our experience with very similar projects and the information provided to us regarding the proposed construction, we recommend that, based on the rock samples collected, the rock mass be removed using conventional equipment, such as hoe ramming or ripping along the joints. At this point of the project, no blasting is needed or recommended.

It is recommended that the planned construction be supported on footings bearing on Stratum 2 (Bedrock), with a maximum allowable bearing pressure of 20 tons per square foot (tsf). Settlement under the building loads is expected to be less than ½ inch, and would occur during construction. Should the rock at the design subgrade elevation be found to be weaker than expected, new footing requirements should be reviewed with the structural engineer to confirm the rock present can support the design bearing pressures. All new footing or wall footing subgrades must be inspected and approved by a Professional Engineer, licensed in New York State.

¹ The Core Recovery is defined as the ratio (expressed as a percent) of the total length of recovered core to the length cored.

² The Rock Quality Designation (RQD) is defined as the ratio (expressed as a percentage) of the total length of recovered core samples having a length of at least twice the core diameter (e.g., about 4 in for NX-core) to the total length of core.

CLOSING

Thank you for this great opportunity to work with you on this project. If you have any questions or would like to discuss the contents of this letter, please don't hesitate to call me in the office at 914-592-4616 or on my mobile at 973-727-7329.

Very truly yours,
Geotechnical Engineering Services, P.C.

Ziad H. Maad, P.E., D. GE.


Attachments:

- Boring Location Plan
- Typed Boring Log (Boring B-1)
- Rock Core Photo Log

Log of Boring B-1

Sheet 1 of 1

Project: 22 Nethermont Avenue				Project Number: 2020031			
Location: White Plains, NY							
Date(s) Drilled 6/16/20 - 6/16/20		Inspector Haykel Melaouhia, PhD., Aflaaz Saleem		Coordinates North: East:			
Drilling Agency Municipal Testing Laboratory (MTL)		Foreman Fiad Khan		Approximate Surface Elevation (feet) ± 517			
Drilling Equipment Portable Gas		Drilling Method Mud Rotary		Completion Depth (feet) 10.5		Rock Depth (feet) 0.0	
Casing Size/Type 4" Steel		Size/Type of Bit NA		Sampler Type(s) NA			
Groundwater Level and Date Measured NA		Hammer Wt/Drop NA		Casing Hammer Wt/Drop NA		Size/Type of Core Barrel 4" and NX	
Boring Location See Boring Location Plan (Figure 1)				No. of Samples Dist.: 0 Undist.: 0 Core (ft): 11			

Depth, feet	Soil Samples			Rock Coring			Graphic Log	DESCRIPTION	Liquid Limit	Plastic Limit	Water Cont. (%)	% Fines	REMARKS
	Type, Number	Recov. (ft)	Pen. Resist. (blows/6 in)	Run Number	Recov. (%)	RQD (%)							
0				C-1	100	100		Medium Hard, Slightly weathered, Gray and light brown Granite, weathered joints					Cored from grade to 1.5 ft with 4" single tube core barrel
				C-2	60	0		Decomposed, Weathered Gray and light brown Granite, broken					Switched to NX Double Tube core barrel at 1.5 ft
								Intermediate to medium Hard, Weathered, Gray and light brown Granite, trace Schist, Weathered joints					
				C-3	75	43							
5								Medium Hard to Hard, slightly weathered, gray and light brown Granite, trace Schist, slightly weathered joints					
				C-4	92	85							
10													
								Boring completed to 10.5 ft below ground. Boring backfilled with cuttings upon completion					
15													
20													

Template: GENERAL GES LOGO Proj ID: 22 NETHERMONT AVENUE.GPJ



**GEOTECHNICAL ENGINEERING
SERVICES, P.C.**
6 Bayberry Road
Elmsford, NY 10523

ROCK CORE PHOTOGRAPHIC PLATE

Boring No.	Core No.	Depth (ft)	Rec %	RQD %
B-1	C-3	1.5 - 5.5	75	43
	C-4	5.5 - 10.5	92	85

Project Name: 22 Nethermont Avenue

Project Location: Northeast of Intersection of Nethermont Ave and Freedom Rd, White Plains, NY

Dwg No. Plate 1

Drawn By: DJG **Project No:** 2020031

Ch'ked By: ZM **Date:** 6/18/2020